

PERSONAL

There is a recurring daydream that I suspect most of us enjoy from time to time. We suddenly find ourselves put in complete charge of education with absolute power over what is taught. Alarmed at all those newsreel shots of demonstrators hurling rotten eggs and squashed tomatoes at politicians and missing by a mile, I find my favourite fantasy is to make cricket and rounders compulsory. It is the only way of improving the nation's aim.

However, what always makes me miss the ejector seat on this particular Walter Mitty indulgence, and return to teaching my group, chairing the meeting, or whichever other reality I have temporarily escaped from, is the sheer responsibility of being such a one person *El Supremo*. Moreover, the tradition in education in this country is that no single individual should be allowed to exercise such awesome power.

Some of the most interesting discussions about control over the curriculum took place during parliamentary debates of the 1944 Education Act. Several MPs had very clear ideas about what they would prescribe for children given half a chance. One demanded something a lot more lethal than squashed tomatoes: "Is it to be obligatory to give teaching and training to

young people on the composition and duties of the Armed Forces of the Crown? ... will this instruction also include training on a miniature rifle range?"

Fortunately, the architect of the remarkable 1944 Act was R A Butler, and his reply to some of these wilder demands for compulsion this and that was a wise counsel against any would-be Crazy Horse, whether a minister or a local director, being allowed to impose his will.

His words are worth noting, for they have acted for nearly 40 years as an unseen guideline to those in power. "It has been felt that, in certain areas, there is a danger that the Secretary, or director of education, may fancy himself in certain subjects, or in some branch of study, and may go into a school and, by an *obiter dictum*, try to direct the secular instruction of that school more, as he would say, according to the wishes of the authority. That sort of interference with the individual life of the school is undesirable."

Indeed Churchill too recognized the dangers, and Butler tells in his engaging autobiography *The Art of the Possible* of a conversation between the two of them when Churchill asked him to introduce more patriotism into schools: "Tell the children that Wolfe won Quebec." I said that I would like to



Ted Wragg

influence what was taught in schools but that this was always frowned upon. Here he looked very earnest and commented, 'of course not by instruction or order but by suggestion'."

All of which makes very sinister indeed the ham-fisted attempts of Sir Monty Python (65), a Westminster pensioner, and one or two of his ministerial buddies to control the nation's thoughts by proscription. The culling of advisory bodies has also served to funnel more personal power to national political leaders. Examples of direct interference are mounting up

ever more rapidly, and have been well documented in *The TES* during the last two years.

Recently we have seen Sir Monty's forbidding of questions on the social consequences of science, such as pollution or nuclear power, in 16-plus exam syllabuses. He has also invaded teacher training, tried to prescribe single subject specialism for primary and secondary teachers, and stop graduates in certain subjects from training at all.

The Manpower Services Commission has blocked social and political education which might touch on themes like unemployment, and indeed drama proposals to the MSC have been subjected to similar scrutiny. That imaginative curriculum developer Norman Tebbit, would-be proprietor of the Norm Academies, interfered in a school's role play exercise which was exploring cultural differences, and Rhodes Boyson has held back sex education proposals first at the DES and subsequently at the DHSS. Opponents of sex education seem afraid that pupils may go out and practise what they have learned, but since school lessons often have the exact opposite effect, sex education classes may turn out to be the best form of birth control since the dawn of the human race.

What on earth, one speculates, would a ministerial-inspired curriculum look like? A new series of primary school readers *Monty, Rhodes and Norman find Treasure* or, for older pupils, *Monty, Rhodes and Norman meet Dracula* (Dracula lost in extra duty) might have humorous appeal. Or what about the BBC scrapping the long-running radio programme *Singing Together* in favour of *Singalongalong*? Indeed, now that some schools radio broadcasts are put out at night why not a series of his speeches under the title *Monty's Greatest Hits*? Since some two million insomniacs are said to eavesdrop on night-time transmissions, the BBC has a real chance not merely to entertain and educate them, but to cure them.

Through much of this century we have developed an enviable tradition of localism, whereby schools are encouraged to work out their curriculum cooperatively under the supervision of their local authority and with occasional guidance and advice from the DES. It is bizarre that the first individual threat to this precious freedom should come not from a brilliantly inspired curriculum developer, nor from some greatly experienced and talented educator, but rather from the port-out-of-touch fantasies of a powerful patrician pensioner.

AUSTRALIAN DIARY

Back with a bump. Returning from Australia at this time of year means a 24-hour journey from spring to autumn. Headwinds, leader skies and a hint of drizzle seem suitable images for the present state of English education.

Across the other side of the world, Bob Hawke is busy talking the economy up. Australia has won the America's Cup, and politicians still speak as if more education were a good thing in itself (and one reason why the Japanese and the Singapore Chinese and — for that matter, the Americans, the Swedes and the Norwegians, are making a better fist of the 1980s than countries like Australia and Britain at the bottom of the OECD league table). Australia means to do something about this — to back itself up by its own bootstraps — unlike Britain where cosmic pessimism reigns and education is just another consumer good, to be rationed by the nation's purse.

Sixth-form colleges flourishing

How the sixth-form curriculum is managed varies from one Australian state to another. Some states still have an external Higher Schools Certificate examination, and a broadly academic programme, alongside which recently introduced "transition" education courses sit uneasily. The success of "transition" inevitably varies but there is the suspicion that all too often it takes the form of a frantic attempt to cram in "vocational" or "vocational" training, or continuing education, for young people who have already got relatively little out of 11 years of general education.

Canberra, on the other hand, has a more sophisticated system. Secondary schools for years 11 or 12 along the lines of sixth-form colleges.

I spent a morning at Dickson College, an excellent institution in building on a site of a pre-existing secondary school. Certainly there was plenty of evidence that the curriculum had been broadened to include a well-equipped motor vehicle maintenance course and facilities for a course on motor body-work repairing, which enabled students to spend a year learning how to refit old bangers and get them back on the roads. The aims and the approach were "educational", not vocational — the course did not carry any implied credit for apprenticeship or technician training — but it certainly seemed to succeed in engaging the full



Car maintenance on the curriculum

energies of the students, and leading them through practical activities which they enjoyed and valued to serious work on the theory and principles of motor engineering.

One measure of the success of these schools is the staying-on rate — rather more than 80 per cent stay on to year 12. Another is the evidence of what the students themselves say. A recent evaluation of the system by an academic at the Australia National University, Don Anderson, found student opinion to be as favourable as the staying-on rate would lead you to expect.

But it seems that the last 10 per cent of the rise in the staying-on rate has increased the number of "involuntary" students and begun to produce motivational and discipline problems not encountered before.

What has been made possible, the broadening of the sixth-form course — just by "introducing" excellent courses in practical subjects, but also by offering a spread of modules in subjects like English and mathematics to meet the needs of a wide range of ability — has been the replacement of the HSC by an internal assessment moderated externally by a system of academic aptitude tests.

The schools, therefore, have a much greater degree of freedom for curriculum development. But courses which are to be the basis of matriculation have to be approved by an accreditation council. The majority of the courses which serve to broaden the curriculum do not carry accreditation for higher education purposes.

A handful of aces

The dispute on aid to non-government schools rumbled on throughout the period of my stay and will no doubt do so for many months to come. Perceptions changed from state to state. In New South Wales there was a tendency to play down the threat to the independent schools: a 40 per cent Catholic vote (traditionally Labour) meant that too many parents had a direct interest in the continuation of aid. The open opposition of the Catholic hierarchy would be a formidable obstacle.

It became clear that what caused anxiety to administrators was the risk of the indefinite extension of the scheme as more and more religious sects seized the opportunity to get government finance for new schools.

I visited the Parkmore Full Gospel College in a suburb of Melbourne. Trevor Field the headmaster, runs the school of 80 children, ranging from 5 to 16, with one or two staying on beyond that age.

The school is one of about 70 set up using the methods and materials of a Texas fundamentalist group going by the name of Accelerated Christian Education. ACE could be said to "franchise" the system, providing a handbook of instruction on how to set up a school, and a supply of pre-packaged teaching materials.

The teaching method consists of sitting children in carrels, to pore over work-books for 40 per cent of their time with a heavy concentration on English, maths or religious education. As you might expect, the packaged material for English was, in large measure, a reinforcement of the RE, with liberal quotation from Scripture and a strong moral content.

Mr Field made it clear that reading material for English (and for any other subject) was always "carefully" selected to make sure it was consistent with the school's religious beliefs. Biology was taught and evolution and creationism were offered side by side, as Mr Field put it, a strong bias towards creationism.

Whether the system actually produced anything which could be called "acceleration" was not clear. Mr Field said that the school had a fair proportion of children in need of remedial education. The discipline was one of the features of the school which parents paid for — various rewards and punishments were on offer including the inevitable "paddle" for "moral" offences.

was a former high school teacher with 16 years' professional experience and the seven members of staff all had teaching qualifications. All in all, the facilities were pretty modest but the parents got what they paid for, a protected educational environment based on a clear religious doctrine which permeated the whole.

It is easy to see how a school like this might raise difficulties for a state government, with strong doubts about the adequacy of the curriculum and the range and variety of the facilities. Equally, it was recognized that once the state begins to pick and choose between denominations it soon gets into deep water.

Drifting into a new deal

I wrote last week about Senator Susan Ryan's grand vision of the comprehensive reform of curriculum, structure and examinations needed to transform Australian education from being a "low retention" system to one in which 70 or 80 per cent of pupils would stay on to 17 or 18. In Victoria, I heard a rather less idealistic, but more convincing version of the same thing from administrators in the state education department.

There would be, I was assured by Ian Allen, an executive director, no full frontal assault on the curriculum

and the examination system. But the trends were pointing towards more people staying on because the job were disappearing.

As the numbers of stayers on rose, so would the curriculum gradually change to accommodate them. Meanwhile, the examination system was also in the process of reform and within a few years the picture would have altered.

Reform by drift? Adjustment in the face of external pressures? All a good deal more convincing than a politician's propaganda in Canberra? But will it happen fast enough to the growing army of young unemployed? Or will the employment lobby get the initiative back, as in Britain?

One reason to be dubious about system-wide curriculum reform could be that Victorian is already reformed with structural reform, and more so than in the education office.

The schools are now getting used to a new decentralized administration. Every school now has to have a school council composed of elected representatives of the staff, the pupils (in the case of high schools) and the parents. This will be the governing body responsible for the curriculum and spending the school budget. The latest move is to make the school council responsible for appointing the head.

This (for Australia) novel commitment to local control, might not fit easily with the system-wide reform espoused by Senator Ryan. Perhaps this is why some people see reform drift as the best policy.

Stuart Mackay

No 121 CROSSWORD by Ruff



- Across
1. Chinese leader holds a bill for port (5)
 2. Jams gold in lily (6)
 3. Affirmatively talk (3)
 4. Lost again perhaps in months of the old days (9)
 5. The work of these artists is above our heads (7)
 6. Very clear to being (3)
 7. Thin run, when out, will hardly encourage it (6)
 8. A professional apt to benefit (6)
 9. Eastlake centre (5)
 10. Its strength can be shown by proof (7)
 11. This may mean extra work (6)
 12. Regret expressed in a French way (3)
 13. Dope and sex orgy goes unadvised (7)
 14. Bull, diesel (5)
- Down
1. Not a stone's throw from enormous wedge (7)
 2. A bad forecast (5)
 3. Cat requires a certain quiet life in the past (6)
 4. Bill for publicity (6)
 5. Rattle caused by a poor match (5)
 6. Deal records (3)
 7. Open lark; perhaps not a word (6)
 8. The "revelation" of a word (6)
 9. Figs for Apple (6)
 10. Clerk at the end of the line (5)
 11. A word for a word (5)
 12. A word for a word (5)
 13. A word for a word (5)
 14. A word for a word (5)
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Spontaneous hypnosis helps the schoolwork go down ... Picture: Laurie Sparham/Network

Entranced by the spelling class

by Mike Durham

A country doctor has become the talk of school staffrooms in Staffordshire following his experiments with hypnosis on teenage pupils.

The GP, a qualified hypnotherapist, spent six months mesmerizing a group of 15 pupils — with spectacular results. All the pupils reported an improvement in their attitude to school. Most said their concentration and memory were better, and they enjoyed their work more. A few even claimed to be looking forward to exams.

But the doctor regards his experiment as a failure because, in the end, none of the pupils showed any noticeable improvement in exam results.

The GP — who talked to *The TES* on condition that he remained anonymous — picked the teenagers at random from among his patients. Most were 14 or 15 and they attended Painsley School, Cheadle, High School and Blythe Bridge High School, near Stoke-on-Trent.

"I've always been interested in the further limits of human ability," he said. "So I thought it would be interesting to see if I could improve the children's performance in class."

In weekly sessions, the GP hypno-

Continued on page 3

Double blow to Sir Keith's schemes for staff quality

by Bert Lodge

Less than six months after announcing he had closed the loop-hole which allowed untrained maths and science teachers to enter teaching, Sir Keith Gray, Education Secretary, is being forced to open it again.

And another of his aspirations for improving teaching quality — that of requiring teachers to teach only the subjects they graduate in and only this time age groups — will probably disappear. DES officials have admitted that not enough graduates will be available to teach by the 1990s, they say.

The double blow to Sir Keith's ambition to tighten up teachers' qualifications is revealed in new information disclosed in confidential papers to two advisory committees.

These show that regulations drafted years ago intended to allow technicians and other skilled workers to fill shortages in schools are now being re-examined to allow untrained graduates in maths and science to continue to creep into the profession.

Yet in a White Paper on teaching published only in March, Sir Keith announced the extension from 1990 of the requirement for maths and science graduates to be in the profession by 1990.

The committee has been asked to comment on the drafts by October 21.

Exam marks 'poor gauge of schools'

by Nick Wood

Exam results throw little light on how well a school is doing its job, particularly if it serves a poor area, according to interim findings from a Government-funded study.

The average pupil attending the "best" school in such an area will get just one CSE grade 3 more than his classmates in average schools in the same neighbourhood, it says.

In favoured areas, the school with the best exam results typically out-scores average performers by two O level passes per pupil.

The findings come from Dr John Gray and Mr Ben Jones of Sheffield University, who are conducting a three-year investigation, funded by the Social Science Research Council, into ways of measuring how well schools are performing.

They are based on data from six I.e.s.s. covering 150 secondary schools, which have provided information both on exam results and the social background of their pupils.

Dr Gray says that around 80 per cent of the observed difference between the exam results obtained by schools can be explained by variations in the intellectual ability and social backgrounds of their intakes. Only 20 per cent — "considerably smaller than the sorts of figures usually bandied about in public debates" — can be laid at the door of the school.

A major aim of the study is to encourage I.e.s.s. to collect data on other aspects of school performance, for instance truancy rates and suspensions and exclusions, and to investigate the extent to which such information can provide a reliable yardstick for making comparisons, Dr Gray said.

The limitations of exam results in distinguishing between good and bad schools serving poor areas highlighted the need for more sensitive and revealing methods of assessing schools, he added.

Controversial proposals to give black parents much greater control over their local schools are to be put before councillors in Brent.

They involve appointing more black governors and could lead to black teachers being drafted into schools with high numbers of ethnic minority children.

Fund-raising pays wages

by Richard Garner

A school's parents have raised £1,000 over the past year to help pay the wages of its ancillary staff, whose hours of work were cut by the local education authority.

Weymouth Grammar school parents set up a parents and community trust fund just over a year ago to offset the effect of education cuts imposed by the Conservative-controlled Dorset County Council's education committee. In its first year of operation, the fund has since received £10,000.

Mr Patrick Nobes, headmaster of the school, which has 1,200 pupils, said: "In principle, I totally disagree with what I'm doing and urging the parents to do, but what do you do when the local authority and the Government do not adequately fund you. I know that the children of this generation are being starved of resources."

The Manpower Services Commission scheme to introduce technical and vocational education for pupils of all abilities from 14 to 18, started this term in 14 areas. *The TES* visited three very different projects — in Devon, Barnsley, and Hertfordshire — and found:

- Thousands of pounds' worth of new computers, electronic typewriters, technical equipment and books, but confusion about how they should be used.
- One project where important elements will not be put into effect until next year, if ever. Full story pages 12 and 13.

Brent plan boosts blacks

Controversial proposals to give black parents much greater control over their local schools are to be put before councillors in Brent.

They involve appointing more black governors and could lead to black teachers being drafted into schools with high numbers of ethnic minority children.

Mr Ron Anderson, chairman of the education committee and a member of the working party that is drawing up

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ILEA reorganized

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Sir Keith's London takeover

The Government calls the White Paper setting forth its plans to wipe out the GLC and the metropolitan counties *Streamlining the Cities*. They might have said the same thing about Dresden.

There have certainly been plenty of critics of the overlap and expense caused by this tier of local government, which resulted, of course, from the reorganization carried out 10 years ago by a previous Conservative administration. On the evidence of last week's White Paper, however, this second bash at the job had been even more hastily thought out than the last one - as a sop to throw to a party conference paying for rate reform and public spending cuts - and with even more doubtful motives besides.

This seems to be especially true of the provisions for changing the constitutional basis of the Inner London Education Authority. This would remain a unitary body but be controlled by a Joint Board composed of elected members nominated by the inner London boroughs. Since this is not as sudden as abolition, or as dramatic as breaking up the authority and handing education to the boroughs, reaction to the ILEA proposals has been muted in comparison with other aspects of the plan which has tended to turn into ritual Red Ken baiting.

It therefore needs to be spelled out clearly that this White Paper - taken together with the Government's other current proposals for rate limitation - would give the Secretary of State for Education far greater powers than he has ever enjoyed before. It would be a temporary break with the principles of local educational autonomy as set out in the 1944 Act and, by giving the DES direct power to control spending and staffing, bind the new authority hand and foot, for the rest of this decade.

The White Paper envisages two separate pieces of legislation. One would abolish ILEA in its present elected form when the current GLC/ILEA term of office comes to an end in May 1985; the other would establish a Joint Board from spring 1986, with a membership reflecting population size and political representation in each borough.

There is said to be considerable disappointment on all sides of the political spectrum that the well-supported proposal for a directly elected ILEA failed

to win the day. In theory, at least, more direct democratic control might have been a way of making education more accountable and giving parents more power. But in reality this idea never stood much of a chance: the opposition to ad hoc elected bodies is, and ought to be, strong because they invite all the abuses of single issue politics. From Mrs Thatcher's point of view there was the added disadvantage that it was assumed that an elected ILEA would still have a built-in Labour majority. The Conservatives set great store by strengthening the link with the borough ratepayers.

Calculations suggest the Joint Board may have rather stronger Tory representation than the existing ILEA but not necessarily to the extent of toppling the Labour majority. This, presumably, is one reason why the Secretary of State will take financial and staffing powers for three "transitional" years, from 1986. After that, the Joint Board for inner London education will be subject to the same rate limitation arrangements as all other I.E.A.s.

What is still in question, however, is how the rate limitation proposal will operate. It could be that the draconian measures for controlling inner London education spending are inspired by fears that once again, the ACC and the House of Lords will manage to dish rate-capping because of its fundamental incompatibility with democratic local government. The present philosophy is "If you can't get away with rate-capping, try knee-capping." But is this constitutionally sound?

Under the worst possible scenario for schools and colleges in the nation's capital, the Government would bring its rate-capping legislation into force in 1985, as planned. That would coincide with the year in which the elected members in charge would be seconded from the boroughs to provide an interim Joint Board for one year. They would not necessarily have any experience in education, and would certainly not have been elected on any kind of election manifesto. They would have to spend half their year in office coping with a budget prepared by the "previous administration," and the other half preparing one to be seen through by their successors.

If this year's figures are anything to go by, this inexperienced body might then have to grapple with

cuts of £100m, the gap between the Government target and the ILEA budget. Obviously cuts in ILEA's large budget are possible, but precipitate axemanship could mean mayhem for teachers' jobs.

The 1980 Report on ILEA by Her Majesty's Inspectorate has been cited to support the White Paper aspirations about "improving the standards and cost-effectiveness of the service." The inspectors' criticisms about spending and inefficiency mainly related to alleged duplication of resources. Savings have been made on resources since then, and mostly used on special measures elsewhere, but in any case those of economies could not produce cuts of much more than 2 per cent.

There does not seem much doubt that large-scale staff redundancies will be necessary if the proposals go through, and they are clearly envisaged in the White Paper. There is no knowing how they will be carried out once the Education Secretary starts to exercise direct control, but freezing of vacant posts, for example, would immediately affect both curriculum and administration in an arbitrary way.

It is indeed difficult to see why this should lead to improved standards. Even with the best of intentions, borough councils may need larger memberships to find enough people with enough time to take on this heavy extra responsibility.

Education on a London-wide scale has a long and honourable history. Of course ILEA has its faults and has managed to get away amazingly generous budgets by current standards but, as Christopher Price pointed out recently in *The TES*, Matthew Arnold noted 100 years ago that it cost 50 per cent more to educate a child in London than it did anywhere else.

What is profoundly depressing for everyone who cares about education in London is that all this comes at a time when standards are starting to improve in secondary as well as primary schools, attendance figures are better, the Hargreaves and Thomas inquiries promise curriculum reform, and the equal opportunities and multi-ethnic initiatives are getting under way, along with other measures aimed at under-achievers. There is a real fear that now everything will be brought jolting to a halt and that officers and inspectors will have to spend the next five years undoing all they achieved in the last five.

COMMENT

A first look at TVEI

Elsewhere in this issue, Philip Venning reports on the early progress of three of the 14 Technical and Vocational Education Initiative projects in Devon, Dorset, and Hertfordshire. For obvious reasons it is mainly a matter of reporting aspirations at this stage. The TVEI has been set up at break-neck speed. The proposal itself was sprung on the world less than a year ago - a brilliant coup for Mr David Young, an opportunist's stroke which caught the Prime Minister's imagination and one which by-passed all the normal consultations. But when launched it was no more than a half-baked idea, all the planning remained to be done, and the only people who could do it were the local education authorities and the schools.

Though the Manpower Services Commission remain the paymasters, and may still turn out to have some disagreeable points in their locker, the initiative is now clearly in the hands of the educators. This week's feature shows how varied the results are likely to be. Each of the three projects is developing differently. Each I.E.A. has interpreted the brief according to its own circumstances and its own strengths and weaknesses. A common feature is the emphasis on shining new equipment - not surprisingly, given the chance of buying new hardware at the MSC's expense. Whether this is going to make for the best kind of curriculum development remains to be seen. Without disputing the need to provide proper equipment, it is difficult to resist the Joseph-like belief that it is



TVEI pupils at St James High School, Exeter.

pupils more equal than others. There seems to be no way out of this maze: an exemplary scheme, intended to influence the whole system by demonstrating what can be done under favourable conditions with extra resources, is bound to bring unequal benefits to those lucky enough to be chosen as guinea pigs.

This, of course, makes it even more desirable to ensure that those taken into the scheme are a reasonable cross-section of the school population. First impressions seem mixed on this score. Some authorities have achieved a very credible mix of ability and gender. Others are finding it more difficult. Bursley, for instance, has reportedly found it particularly difficult to overcome the sex-stereotyping which restricts demand from girls for certain technical options.

It will be important, too, to look at the experience of schools in areas surrounding those which are now receiving the TVEI boost. Some teachers in Devon schools beyond the catchment areas of the TVEI project complain that while MSC cash for expensive new equipment flows like

water for the chosen few, elsewhere in the county there is no money for new books for a science department which wants to change its chemistry course, or even to maintain the equipment and resources required for the last generation of curriculum development projects. If TVEI is just a new patch sewn into an old garment then it would be wise to look out for splitting at the seams.

No case to answer

In *The Times* on Monday, Lady Cox, Dr John Marks and Dr Maciej Pomian-Szednicki attempted to shrug off the damaging criticism of their purported study of *Standards in English Schools* (in *The TES* July 8 and 15, and now, as *The TES* showed on September 30, in an internal assessment by DES statisticians) by roundly asserting that "we are capable of refuting the criticisms which have already been published." They also (as is their wont) again talked about demanding the right of reply.

Readers may be interested to know that Lady Cox and Dr Marks tried to raise a complaint to the Press Council about *The TES* treatment of the book. It will be recalled that this treatment included two long and scholarly review articles by Dr John Gray of Sheffield University. *The TES* also offered Lady Cox and Dr Marks the chance to write a 2,000 word article in which they could have set out the refutation which they now tell the editor of *The Times* at their fingertips. They failed to take up the offer. Likewise, the Press Council failed to take up their complaint, finding no case to answer against *The TES*.

no comment

But after five years of working closely with the Department of Education and Science, you gradually begin to be assimilated by the system. After 10 years, I think I would have become a Whitehall mandarin. I was beginning to see Treasury officials as almost human. It was as bad as that.

Sir Edward Parkes, former chairman of the University Grants Committee, interviewed in the *Yorkshire Post* on September 20, October 10, 11 & 12.

Second opinion

Why the careers service should stay with the I.E.A.s

The careers service is on trial. It will be judged on its contribution to the Youth Training Scheme. The trial will be pronounced at the close of independent review probably due 1985. There is the clear threat of another MSC take-over.

Not that the service fears judgment. Careers officers provided the statistics for local planning and made the knowledge of employers' needs which schemes have been based on. Through their influence on area power boards, they ensured that provision has been based upon the aptitudes and inclinations of school leavers. The great majority of employers recruit through careers offices.

Next year's planning will be less still. As careers officers monitor people's progress within schemes, their advice to next year's leavers will be sharpened.

Whatever happens, the careers service will be active. Its part in YTS will be central and prominent. David Young and Geoffrey Hale have said as much. Peter Morrison, minister responsible, says it is a foregone conclusion.

But this is not enough. Of one YTS will be better if young people believe it takes account of their plans. It will be better still if it is recognized as one of a number of routes to jobs. The interests of the economy will be best served if the individual can learn to plan his own education and training - from apprenticeship, college, polytechnic, training, university, matching his capacities and inclinations to the available opportunities to the benefit of all concerned.

To exaggerate the benefits of career planning would be naive. But career access to vocational guidance does constitute social engineering: it is a prerequisite of the well-motivated work force necessary to a healthy economy.

So the careers service would be judged on more than YTS. On behalf of their clients, careers officers would like some say in the administrative framework. While the MSC might offer superficial advantages, it could not comfortably contain a service dedicated to the success of the economy through a range of individual capacities and inclinations of the individual concerned. The MSC could provide a biddable planning service but it is all that is required. But this is not in the long run meet the needs of employers or potential employees.

So why should the careers service remain with the education authorities? Because future employment patterns will contain periods of work, training and education facilitated by accessible local sources of information, and advice for all those who need it, and at the very least for those who need it.

Personal career planning and development planning are inseparably linked and increasingly locally-based. Local authority involvement in employment promotion, community programme, self-employment and education requires the cohesion which the careers service can provide.

The exploitation of TVEI PCE, UP, Open Tec and many other initiatives requires a catalyst within education. It is vital that careers education in schools, counselling in colleges and information for young adults remain a focus.

The time to review the function of the careers service is overdue. It is within the ambit of the local authorities that the service will

David Peck
Mr Peck is Principal Careers Officer for Shropshire.

Entranced by spelling lessons

Continued from page 1

He concentrated on ego-strengthening, promoting calmness and confidence, and on heightening the children's interest in their studies.

The doctor said the pupils were easy to hypnotize. At first he asked them to stare at a special "moving spiral" gadget, but later he was able to put them "under" by suggestion.

Then he would take the children together on a "journey" suggesting what the children saw and did. All the children "saw" their adventures

One journey was down a lift shaft in a subterranean network of caves - the Cave of Confidence, the Cave of Superpower Memory, the Cave of Knowledge and the Cave of Excelling at Sports among them.

The pupils "stopped" in each cave and the doctor asked them to explore. But when they compared notes afterwards each saw the caves in a different way. One pupil saw the Cave of Knowledge as a library, another as an empty room.

All the pupils thought their school work improved as a result of the weekly sessions, and were sorry when the doctor called off the experiment in June.

One pupil, 15-year-old Jen Worrall from Cheshire High School, said: "Before hypnosis, I used to put my books down and wouldn't bother. Now it just seems natural to pick up a book."

"It taught me that there is a great deal for knowledge there in your mind. It's not a matter of making yourself listen." Her marks in biology that year went up from 22 per cent to 75 per cent, she says.

Muns Mounford, 16, from Painsley School, said his handwriting improved dramatically and he got better O level grades than he expected.

Another pupil, Darron Reynolds, 15, asked the doctor for help with his high jumping and went on to become a Staffordshire schools champion. "I can't describe hypnosis but it just amazed me, and I wanted it. It's like a drug," he said.

Other benefits the pupils claimed ranged from overcoming shyness and conquering fear of the dark to developing a photographic memory for parts of a biology textbook.

Jobs threat

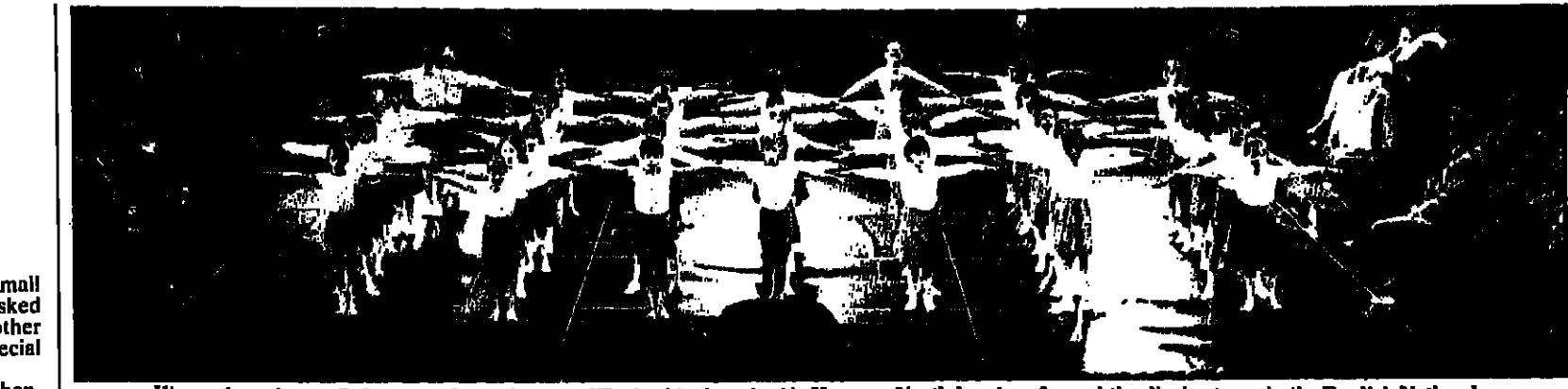
The spectre of compulsory redundancies is worrying teachers in Bradford as councilors decide whether to go ahead with plans to axe more than 300 teaching posts as part of a £9m saving on education spending next year.

Union leaders say the plan - outlined in a report to next week's education committee by education officers and calling for the full-time equivalent of 312 teaching posts to be axed - will mean up to 550 teachers will lose their jobs. This is because many of those who would go will be part-timers.

The announcement will come too late to influence the proposals put to the board over the weekend. But papers from the NAB secretariat make it clear that the recommendation will be to give the lion's share to polytechnics in London and the Home Counties.

The loss of places in the south east is identified in the board papers as a major problem. Additional places for the region would also go some way to easing the financial problems of polytechnics hard hit by the present recommendations.

It is now unlikely that final agreement will be reached on a funding system or on the detailed allocation of



Wagnerian role: pupils from St. Mary's Church of England Junior school in Hornsey, North London, formed the display team in the English National Opera's new production of *Rienzi* at the London Coliseum

DES ponders directly-funded schools

by Biddy Passmore

The reintroduction of schools directly funded by the Government is the latest idea for extending parental choice now circulating within the Department of Education.

The scheme would be aimed particularly at inner city areas where the new schools could provide an alternative to comprehensive, especially where there were few or no grammar or assisted places schools. Because they would be directly funded, they could be imposed from the centre on hostile local education authorities.

The plan, described as "only a hypothetical sketch" this week, is set out in a paper by Mr Stuart Sexton, Sir Keith Joseph's political adviser. It was drawn up in consultation with Mr Bob Dunn, junior schools minister, and Mr Oliver Letwin, education adviser at 10 Downing Street.

Mr Sexton suggests that there may be a case for returning to the direct funding of schools by the DES which

ceased when the old direct grant scheme ended in 1976. (The assisted places scheme, which replaced it, finances selected pupils, not schools.) The schools that would receive cash from the Government would be new ones in old buildings: the paper acknowledges that, with so many schools closing, there is no need to plan expensive new buildings.

Secondary schools in the scheme would be selective, but not necessarily on purely academic grounds. Some might cater, for instance, for the technically or artistically able. At primary level, they might be small village schools that would otherwise have to close.

Their funds might come wholly from the DES or through a joint DES/local authority trust. Another possibility is direct funding from the Manpower Services Commission, which can set up and finance its own institutions. The schools would probably be free.

Mr Sexton suggests they might charge a "nominal fee" of between £20 and £30 a term to increase parental commitment. This idea is thought to stand no chance of acceptance within the DES.

Mr Sexton's paper is thought not to have been seen yet by the Education Secretary. It has been submitted as part of the current examination of ways of meeting the manifesto commitment to extend parental choice.

Any move to reintroduce grammar school education in Solihull will be delayed as a result of a rebellion by members of the council's ruling Conservative group, which broke into the open at a council meeting on Tuesday (Richard Garner writes).

Council voted in favour of a motion instructing Mr Colin Humphrey, the director of education, to prepare a report on bringing back selective education as part of a general improvement programme for schools. However,

they failed to set a deadline, with the result that it cannot be produced until December at the earliest. It had been planned to produce it by November.

More than 150 teachers, parents and sixth-formers staged a demonstration outside the meeting to protest at the plan. Inside, two senior Conservatives, Mr David Wynne Rees, the former leader of the council, and Mr George Hill, the chairman of the finance committee, spoke out against it.

As a result of Tuesday night's meeting, it will now not be possible to reintroduce selective education in the borough in 1984. During the meeting, councillors called for Mr Humphrey's report to look into the questions of fixed-term contracts for headteachers and how to dismiss "inefficient" teachers as well as agreeing in principle to the reintroduction of selective education.

Extra £20m allocated to polys and colleges

by John O'Leary

Polytechnics and colleges will receive about £20m of the £25m requested by the National Advisory Body to take more students next year.

Mr Peter Brooke, under secretary for higher education, is to deliver the news this evening at the NAB residential meeting in Eastbourne. And he will make clear that the additional money is intended to increase access to courses, not to protect existing funding levels.

The announcement will come too late to influence the proposals put to the board over the weekend. But papers from the NAB secretariat make it clear that the recommendation will be to give the lion's share to polytechnics in London and the Home Counties.

The loss of places in the south east is identified in the board papers as a major problem. Additional places for the region would also go some way to easing the financial problems of polytechnics hard hit by the present recommendations.

It is now unlikely that final agreement will be reached on a funding system or on the detailed allocation of

places over the weekend. But the main battle will be fought over funding and in particular over the Department of Education and Science proposal to base budgets on last year's allocation to protect the polytechnics.

College principals and the main lecturers' union have both signalled their vigorous opposition to the scheme.

A statement from the National Association of Teachers in Further and Higher Education described the DES scheme as unacceptable and said it would simply shift the problem of under-funding from polytechnics to colleges.

The secretary's proposals for student numbers have altered little as a result of the consultation which has taken place in the last month, despite criticisms from the Council for National Academic Awards and Her Majesty's Inspectorate. Mr John Bevan, NAB secretary, in his introduction to the plan, warns that circumstances dictate that some courses must close even though there were no academic reasons to justify the decrease in enrolments. *THE S*

NUT fights maternity pay deductions

Richard Garner

The National Union of Teachers is threatening High Court action over moves by local education authorities to deduct pay from women teachers claiming maternity benefits.

The union may bring a test case against Conservative-controlled Hertfordshire County Council after failing to secure support from employers' representatives on the Council of Local Education Authorities' school teachers' committee to stop the deductions being made.

Under Department of Health and Social Security regulations, many women teachers who leave at the beginning of an autumn term are entitled to maternity benefits from the start of the summer holidays.

of the autumn term because they have worked throughout the previous academic year. The DHSS regulations say they are entitled to the maternity benefit of £25 a week after completing their last day at work before embarking upon maternity leave.

Mr Graham Clayton, NUT solicitor, said that some I.E.A.s had been deducting pay for the summer holiday period from women who had been claiming maternity benefits. In most cases, a negotiated agreement had been reached with the authorities but there were outstanding cases in Hertfordshire. He was now seeking the go ahead from the women concerned to bring a High Court action against the authority to procure a ruling that such deductions should not be made.

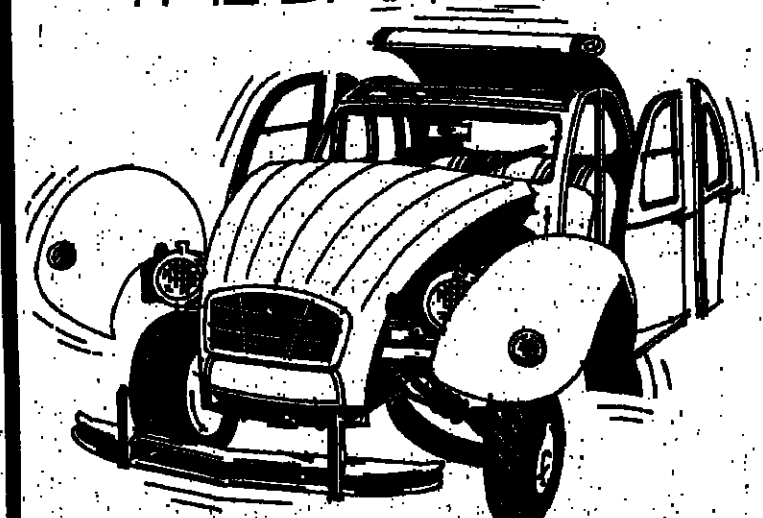
In the case of some women, entitled to maternity benefit for the whole of the summer period, it would mean £150 being deducted from their pay.

A spokesman for CLEA said it had been felt that local authorities could not comply with the teachers' panel's request that they should send out a circular telling their members not to make the deductions.

Mr David Nice, deputy county education officer for Hertfordshire, said that deductions were made in cases where teachers were either still on full pay or 90 per cent pay. "In both these circumstances, we deduct the maternity benefit where they are eligible to receive it," he added.

"There has been some discussion with the NUT and the Association of County Councils over this and we are acting in line with ACC's advice."

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PLATFORM

NEWS

We are all on the side of the angels and so, whether we are in education or industry, we genuflect to the idea of collaboration between the two. But it makes no difference. We continue to go our separate ways, sometimes in hostility and at others in mutual incomprehension. At best we siting a rope, or wooden structure across a deep divide resulting from the different cultures, values and ways of life.

That, at any rate, has been the situation so far. But last month saw the formal initiation of the Youth Training Scheme and it is a little difficult to see that divide persisting with industry and commerce operating explicitly as an element of the education system. Although the introduction of this new partner in education has been discussed very little, indeed some would prefer to limit the impact of YTS on industry as much as possible, the quality and value of the YTS offering to young people will depend very much on the degree to which industrial organizations accept their new educational and training responsibilities.

It is clear that great pressures are being exerted, perhaps most importantly by the Government, to distort the scheme to serve purposes having little to do with training and development, but it remains true that YTS represents an important potential breakthrough in education. For the first time the needs of early school-leavers have been recognized in a massive Government operation catering for about half a million youngsters at any given time. It necessarily caters predominantly for unemployed just now, since most school-leavers step off into unemployment, but the Government and MSC have formally accepted that the scheme "is about providing a permanent bridge between school and work. It is not about youth unemployment... we have not been concerned with temporary measures."

To say that the scheme is concerned to provide a permanent bridge between school and work is to conceive it as part of a continuing process of education in which YTS is a phase with work and the workplace as its main focus. Of course the off-the-job element of the programme, ie, the college component, is of vital importance but it is the on-the-job experience, the learning at work which is the heart of the YTS training year. The place and where many of the skills and social relationships that will sustain the young people in adult life are acquired. Even now, those who leave school at 16 and go into unskilled jobs for which they get no training do in fact continue their education at work, just as do

Morris Kaufman on why the YTS sets challenges which industry is not yet equipped to meet.

Goods that firms cannot deliver

those consigned to unemployment. But most of the lessons are harsh, negative and alienating, and the experience is often destructive.

That is why the entry of young people into the world of work must be consciously designed to provide a positive learning programme in which the experiences encountered and skills developed at work can be generalized by study and discussion at the college, while general and theoretical considerations presented at the latter can be seen and applied in a practical context, at work.

Such an integrated programme is essential for YTS, but obviously the primitive structures of collaboration built so far could not conceivably carry the busy traffic flow between education and industry in the implementation of a fruitful YTS operation. Both sides will have to make considerable adjustments to their perceptions and philosophies, but industry and commerce will have to make provision in areas which have so far been alien to them. They will surely need the assistance of their sympathetic colleagues in education.

In April 1982, the MSC Youth Task Group Report, with the unanimous



agreement of its employer, trade union and educational constituents, set out the base for the YTS scheme. Although the MSC has been distancing itself from these recommendations, they still represent the minimum requirements for any serious education and training scheme. Some companies with a tradition of training and a sense of social responsibility will provide more. Others with an eye to the use of the scheme as a source of cheap labour will obviously try to get away with less, but one hopes that the MSC's own vetting mechanisms and the approval processes of the area manpower boards for individual schemes will weed them out.

In any event, the task group report requires "that training should be of a high quality, should last a year and include a minimum of three months off-the-job training and/or relevant further education". ... that it will provide all young people participating in the scheme ... (with) an integrated programme of training education and work experience ... which can serve as a foundation for subsequent employment or continued training and further education."

... the scheme should ultimately

cover all young people aged 16 and 17 who have left full-time education. ... the trainee should acquire defined core skills ... (receive) an introductory programme of training and skills related to a broad group or family of related occupations ... increase his or her effectiveness in defined 'process' skills (eg, planning or diagnostic skills) ... develop personal and life skills ... receive organized appraisal, guidance and counselling, each person on the scheme should secure a record of achievement which must be recognized by employers and others and act as a foundation for progression to work, continued training or relevant further education."

... an essential part of the delivery in the new scheme will be in-service training, refresher training of supervisors, line managers and instructors, FE staff and other education and youth service tutors. ... Such training is vital because "quality assurance is a key to the success of the new scheme". ... we think it is essential that a specified organization should take responsibility for the complete programme for each individual trainee. ... Whoever "takes responsibility for the complete programme", and it is

likely to be an industrial enterprise for Mode A and an educational institution for Mode B, will seek to gain for a ready-made system that will deliver these goods. It does not yet exist. The objectives sought are quite new and they will demand resources which have yet to be developed. Nor will they be spontaneously generated.

Consider for a moment the implications for a company, and by extension some of the problems of a college concerned to do its best for students, the like of which has never before entered for.

The company will have to make itself competent to plan, execute, monitor and assess a year's integrated training and education programme in association with an educational institution. The programme will go beyond teaching the youngster how to operate the machine or service of immediate concern. It will, in fact, include matters which are apparently of no concern to the company's question. The company will work out each youngster a suitable training programme to meet the needs of the youngster and the system will ensure the accessibility of adults able and desirous of giving guidance and counsel to the trainees.

Even companies with highly developed apprentice training, refresher training centres and the rest, have never before addressed themselves to the needs described, and as a result they do not have the necessary organization or trained people. How can they ensure that every young person knows and feels that a sympathetic adult is available to oversee the programme and provide a pillar of support at difficult moments? Monitoring appraisal and reporting during a year of work experience and learning not as examinations for grading purposes, but as a means of developing assets of the youngster, how will this be made available?

At the very least it is going to add much time and as we know "time is money". No possibility then of doing all on the cheap or dismissing it with a casual comment about "carrying it on overheads". But equally important is the explicit understanding that industry is now in the education business and that it will have to deploy appropriate human and other resources to its activities. It will also, in most of this process if it works in close and friendly partnership with other sectors of the education business.

Morris Kaufman was the chief training adviser to the Rubber and Plastic Processing Industrial Training Board.

Northern boards loath to join profiles bandwaggon

by Nick Wood

Exam boards and education authorities in the north are standing back from the "bandwaggon" of graded tests and pupil profiles - now the subject of intensive development in London and Oxford.

Unlike the Inner London Education Authority and Oxfordshire - which in conjunction with their exam boards have separately announced ambitious plans to introduce records of achievement combining graded tests, profiles and exam results - northern officials have decided to conduct a detailed survey of teacher opinion before deciding whether to follow suit.

No general development plan will be initiated until the boards are satisfied that there is a clear demand from schools and colleges for new systems of assessment and certification, and some indications of the forms which teachers think they should take.

A discussion paper from the Northern Examining Association, an umbrella organization made up of the Joint Matriculation Board, the county's biggest GCE board, and four CSE boards stretching from Lancashire to Humberside.

Nevertheless, the northern boards are not completely convinced by the new moves. Five I.C.S.s - Gateshead, Manchester, Wigan, Wakefield and Bradford - are working with them on preliminary plans for a pilot scheme, but it is stressed, nothing will be decided until consultations are complete.

The paper strikes a generally cautious note about the new forms of assessment. Graded tests, in particular, could prove counter-productive by further limiting the professional freedom of teachers, it warns.

Profiles, containing detailed accounts of the character and behaviour of children, run the risk of giving official endorsement to "biased subjective judgments", and are likely to make considerable demands on a school's manpower and resources.

A questionnaire accompanying the paper, both of which are being sent to all schools and colleges in the area, urges teachers to think long and hard about the implications of such

changes. Mr Colin Vickerman, the JMB secretary who outlined these issues to teachers attending the board's annual conference at the University of Lancaster last Saturday, told THE TES: "We're asking a lot of questions about this bandwaggon. We have the feeling that a lot of conclusions have been reached on the basis of very little evidence. Until consultation is complete, we'll be moving cautiously - there's no point in publicly committing ourselves to something that later proves unworkable."

At the conference, Mr Vickerman reviewed the Oxford proposals, saying that other boards had been shaken by the announcement of a full-blown certificate of educational achievement which would become available in four years' time.

But subsequently it had emerged that its scheme was "by no means cut and dried". Key questions, such as how and when exam results from other boards would be included in the Oxford Certificate and the precise content and scope of graded tests and profiles, remained unresolved.

"These are very critical questions and it is now clear Oxford do not claim to have the answers, but that, like many other people they are working hard on them."

Mr Vickerman also alluded to the far-reaching commercial implications of the Oxford and London schemes - a factor that is bound to weigh heavily with other boards which view with dismay the prospect of losing candidates and business to their trend-setting rivals.

Oxford had "triggered off a gold rush", he said.

The discussion paper concentrates on the pitfalls of graded tests and makes only passing reference to their supposed benefits - better teaching and the improved motivation of youngsters.

"Graded tests could well determine the teaching of a subject to a greater extent than do present examinations," it says. "It is generally accepted that for a grade level to be meaningful it would be necessary to establish closely

defined criteria. It might be expected, therefore, that the criteria for the various grades in a subject would require a much more closely prescribed "syllabus" than existing GCE O level or CSE syllabuses. Further, the use of graded tests in a subject could determine not only what is taught but also the sequence in which it is taught. "One consequence of this loss of flexibility in the school curriculum might be that schools which practice mixed ability teaching would be forced to relinquish it."

The section on profiles sets out a host of key questions that need an answer before real progress can be made. Should the boards validate teachers' comments on pupils and, if so, what form of central monitoring should be used? Who are the profiles for and who will use them? Would employers regard them as useful for students who can in any case gain "good" examination results? Should profiles be restricted to weaker pupils?

Credit accumulation systems, in which courses are broken down into free-standing units of study, are also discussed. Successful completion of each unit would entitle youngsters to a credit, and once a prearranged number of these had been amassed, a certificate would be awarded.

The boards see undeniable benefits in such an approach. Short courses, more closely tailored to the needs of less able pupils, could be more readily provided, and there would be more scope for skills-based and cross-curricular teaching.

But it would be more costly to operate than the existing exam system and make greater demands on teachers' time and energy. The danger of "superficial, fragmentary and unbalanced" courses is another drawback.

Entries for pilot joint 16-plus exams in the north jumped by 20 per cent this year, the conference heard. One in three of the subject entries with the JMB were for the pilot exams begun in 1974 - a proportion that is expected to rise sharply next year when for the first time they will be available throughout the northern region and the range of subjects will be widened.

Teachers pave way for talks on salary structure

by Richard Garner

Teachers' leaders have prepared the way for future discussions on a new salary structure which seemed in doubt when the employers demanded that the talks should cover both pay and conditions.

In a statement, the teachers' panel of the salary structure working party has agreed to the I.C.A.S. idea of a special weekend session to discuss issues raised by the working party's review.

The panel has also passed a motion saying that the discussion of pay and conditions by two separate bodies - Burnham and CLEA/st - will not impede negotiations.

Mr David Hart, general secretary of the National Association of Head Teachers, said the panel's decision meant that the teachers were prepared

to discuss issues concerning both pay and conditions in the working party even though any recommendations arising might then have to be referred to CLEA/st for conditions of service issues and Burnham for pay.

Both sides are now hoping to arrange the residential weekend at a "neutral venue" - the NUT believes its education centre at Stoke Rochford could cope while the NAS/UTW could offer its centre at Rednal.

Meanwhile, discussion has been deferred on a paper tabled by the NUT on arranging induction courses for newly-qualified teachers. The local authorities say the issues raised - including a reduced teaching load for new teachers and proper in-service training facilities - could be discussed in the salary structure working party.

NUT warns parents of cuts threat to standards

Britain's biggest teachers' union is asking its members to distribute a leaflet to parents carrying warnings from the latest HMI report on the impact of cuts on children's educational opportunities.

The leaflet quotes from the report - published in July - which says: "The cumulative effects of financial constraint noted in previous reports still put at risk and in some cases undermine attempts to maintain standards."

It also carries warnings from the HMI report that children's educational opportunities are being damaged by lack of books and subjects being cut from the curriculum, from poorly maintained buildings and the growing dependence of schools on parental payments for basic materials and equipment.

Mr Fred Jarvis, NUT general secretary, said: "Sir Keith Joseph, the Education Secretary, should be pleased that the NUT is telling parents what the HMI is saying is happening to our schools."

"In the measured but firm language of the Inspectorate, the statements of ministers are exposed for what they are - bland, complacent, hypocritical attempts to deceive parents and the public as to the consequences of the government's denial of resources to the schools."

"The Inspectors' report makes it absolutely clear that there can be no more cuts in education - our children's chances are already being damaged too much."

Mr Richard Clark, county education officer for Hampshire, said that the quality of young teachers coming out of college was the highest he had ever known but "we are taking on a smaller proportion of them than ever before - and that worries me".

Mr Clark said he would be recommending the Hampshire authority to adopt a policy of admitting "new blood" into the county teaching force to get newly-qualified teachers into the schools.

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Call for literacy teaching

College lecturers should learn how to teach literacy and numeracy to students on craft courses such as catering, dressmaking and construction, the Government-funded Adult Literacy and Basic Skills Unit says in a hand-book published this week.

The unit says that literacy teaching as part of a course is far better than

referring a student to a specialist, as a clear link can be established between basic and vocational skills.

Teaching Literacy and Numeracy to Craft Students is available from ALBSU, Kingsbourne House, 229-231 High Holborn, London WC1V 7DA, £1.20 plus postage.

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Premature retirement scheme to be reviewed

by Richard Garner

A local education authority's ruling Labour group is seeking changes to its premature retirement scheme following a case in which a headmaster opted to go at the same time as he was taking on a full-time job with his union.

Labour councillors in Tameside, Greater Manchester, are planning to change the scheme to exclude those who have already secured other jobs.

At present, any teacher or head in the borough, above the age of 55 automatically qualifies for premature retirement as part of a drive to combat falling rolls and increase job opportunities for younger staff.

At the same time the authority reserves the right to refuse to employ any teachers who have received premature retirement compensation from any other I.C.A.S.

This move, which will be negotiated with unions over the next few weeks, follows the case of a 56-year-old primary school head who took premature retirement - which included a lump sum payment of around £5,000 and an annual pension of more than £5,000 - to coincide with his appointment as a national official of his union, the National Association of Head Teachers.

Mr Eric Pilkington, head of Corrie primary school in Denton, Tameside, until December, said he approached the authority to make sure there would be

no objections before putting in for premature retirement. He takes up a job as a professional adviser at the NAHT's headquarters in Haywards Heath, Sussex, in January.

Mr Pilkington said: "I have nothing to hide. If you are under the age of 55, your application has to be approved by the education committee but if you are over 55 you have it as of right. There was nothing untoward in what I did. I approached the education department first because I didn't want to be seen to be acting improperly in any way."

"I wouldn't have done it if there had been any objections. Had I taken early retirement and then gone into teaching again, as a number of people have done, I could understand the authority being concerned about it."

"By going, though, I was opening up promotion opportunities in the profession with the possibility that somebody on the unemployed register could have been taken on lower down the scale. I was also going into a job in the private sector."

In a statement to the education committee, Mr Glyn Ford, the chairman, agreed that Mr Pilkington was acting "entirely properly" and within the council's current policy.

However, the council's ruling Labour group would now be reviewing its premature retirement policy.

Tax aid for parents of public school pupils urged

by Diane Spencer

The Government should start now to pave the way for a full voucher scheme by introducing tax credits for parents with children at independent schools, according to the latest report from the Centre for Policy Studies, the right-wing "think tank".

Professor Anthony Flew, Emeritus Professor of Philosophy at Reading University, says tax credits would increase public spending, because more parents would opt for independent schools and thus save the state the cost of educating their children.

The credit would be set at a proportion of the cost of educating a child in state school - tax-paying parents would be credited with the amount while non-taxpayers would receive a cheque from the Inland Revenue.

Once a full voucher scheme was in place, he argues, it would be as easy for future changes of Government to cause "it would be quite impossible to persuade our people to surrender their cash power which that scheme had put into their purses".

Power to the People by Anthony Flew, published by the Centre for Policy Studies, 81 Vauxhall Street, London SW1E 6PL, price £3 plus 50p p & p.

Government intentions unclear as adult education body bows out

Question of ACACE successor in doubt

by Diane Spencer

The Advisory Council for Adult and Continuing Education held its last council meeting this Wednesday.

The Government has not yet indicated whether it will allocate funds for some of its work to be continued by the National Institute of Adult and Continuing Education.

But it is almost certain not to accept ACACE's demands for a national development body to be set up in its place.

To mark its demise, the council published a report called "Six years of research, advice and encouragement: a record of progress in difficult times".

Mr Richard Hoggart, the council's chairman, in a personal statement in the report, said that the council had failed



Richard Hoggart

to persuade the Government of the value of adult education. The universities too had a "weak hold on the need for more continuing education" and most trade unions have done too little and on too narrow a front," he said.

But the vast majority of people did not regard adult education as a joke; they still respected education. "It is the popular journalists and populist councillors who mislead and demand for continuing education is enormous."

The report pointed out that the council is still waiting for the Education Secretary's response to Continuing Education: from policies to practice which contained a blueprint

for adult education for the next 20 years. "This has been on his desk for 18 months," the report said. "Education for unemployed adults has been on his desk for a year."

The council doubts that it raised "the level of excitement about the education of adults," one of the objectives it was given when it was set up in 1977 by Mrs Shirley Williams, the then Education Secretary.

But ACACE claims it has raised the awareness of a large number of members of education committees and officers to the needs of adults. It says: "The fact that so many I.C.A.S.s although hard pressed to find the savings required of them in recent years have managed to preserve, and even in some cases extend, their adult education service may well be due to the influence exerted by the council."

Other signs of changing commitment to adults included policy statements by the TUC, the college lecturers' and university teachers' unions and three out of four major political parties.

The re-grouping of continuing education functions under one Under-Secretary at the DES and working groups on continuing education being set up by the University Grants Committee and the National Advisory Body were also hailed as council successes.

The council has been trying to persuade the Government to establish a National Development Council since the beginning of the year. An announcement because of the June election, Mr Peter Brooke, the education junior minister, is expected to tell Parliament of his decision in November.

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Government proposes three years direct control on capital's education service

ILEA facing drastic cuts threat

by Biddy Passmore

The Education Secretary will be given an unprecedented power to control teacher numbers in a local education authority under plans for inner London, unveiled by the Government last week.

The joint board of boroughs which is to replace the Inner London Education Authority in 1986 will be subject to a three-year regime of direct control by the Department of Education. Its rate precept - the amount of money the board will be able to demand from the boroughs - will be subject to approval by the Education Secretary, who will also "have power to specify levels of manpower or of manpower expenditure".

These plans were set out in the Government's White Paper on the abolition of the Greater London Council (of which ILEA is technically a special committee) and the six metropolitan counties.

They could herald draconian cuts in inner London's education service. The ILEA's current budget of some £870m is £350m above what the Government estimates it needs to provide a standard level of service and more than

£100m over its spending target.

The White Paper was instantly condemned by Mrs Frances Morrell, leader of the ILEA, who said Mrs Thatcher was demanding "dictatorial powers". "Whereas at one time Londoners were to deserve this blitz on their education service and democratic rights?" she asked.

And Professor David Smith, Conservative leader on the authority, said he was "deeply disappointed" that the Government had not been swayed by the arguments for a directly-elected authority.

His disappointment is widely shared within the DES, where direct elections had gained strong support during the summer. But a directly-elected body was vetoed by Mrs Thatcher herself at a meeting with Sir Keith Joseph, the Education Secretary, last month. She felt that direct elections would be more likely to produce a strong Labour majority than a joint board - and that there would be no pressure from the boroughs to hold it in check.

Whereas the present ILEA includes both GLC members and borough nominees, the new board will consist

entirely of nominated members of the 12 inner London boroughs and the City of London. Each borough's representation will reflect the size of its electorate and the political balance on its council.

The change of composition could mean substantially higher Conservative representation on the new board than on the existing authority. At present, ILEA has 34 Labour members, 11 Conservative, two SDP and one Independent. Rough calculations suggest that the joint board, which will have some 50 members, could have as many as 20 Conservatives, with 27 Labour and three Alliance representatives.

The new board will start up in May 1985, when the terms of office of present GLC members expire, and will come into full effect in April 1986.

But the new authority will remain on trial after that date, according to the White Paper. "The Government consider that a unitary education service, administered by a single education authority, offers at present the best prospect of meeting the educational needs of inner London and improving

the standards and cost-effectiveness of the service", it says. Whether that prospect will in practice be realized depends upon the performance of the new single authority; and the Government therefore propose to make the authority subject to review in the light of experience.

The White Paper also suggests that ways might be found to increase the involvement of individual inner London boroughs in their education provision. Ministers are hoping to discover means of doing this during the four-month consultation period on the White Paper.

Inner London teachers are calling for time off to discuss the ILEA's new multi-ethnic initiative, under which all schools must produce a multi-ethnic statement and review their curriculum.

Mr Bernard Regan, executive member of the National Union of Teachers for inner London, said the union very much welcomed the initiative and said it was, if anything, overdue. But teachers needed time off for day conferences so that it was "an organic development instead of something simply grafted on".

Progressives 'have best approach'

by Nick Wood

English graduates who approve of exams, and see themselves as figures of authority in the classroom, have the wrong attitudes for a career in teaching, staff at a leading university department of education have said.

Such students are less likely to be offered places on the department's postgraduate course in English teaching than progressives who dislike the "teacher as expert, teacher as examiner" role and make close personal relationships with their pupils their first priority.

The ideal applicant will regard English as a "major contributor to peace studies" and recognize that the concept of "standard English" has racist political and social overtones because it "preserves forms of oppression" in society.

This rare and frank insight into how students are chosen for teaching jobs comes from the department of education at the University of Newcastle upon Tyne. Writing in the latest issue of the Teachers for Peace newsletter, Mr John Crompton, an English lecturer at the university, spells out a 10-point checklist he and Mr Du Salter, his colleague, used to sift successful applicants from the 180 who applied for a place on the course.

Mr Crompton, a Quaker and a disenchanted member of CND - leaving because it has become too "aggressive" - said the department was looking for people with qualities that included:

- Enough self-confidence to stand the "cynicism, dubility and negative attitude of some of the teachers they will meet".
- Strong orientation towards education as concerned with personal development and relationships.
- An understanding of English as a "field for negotiation of personal perceptions and an honest sharing of uncertainties".
- Opposition towards practices "militating against the above such as streaming, conventional exams (O and A levels), the transmission model of teaching".
- Readiness to base teaching on an "honest appraisal of personal experience as pupil and teacher and careful consideration of research evidence", for instance that showing the "counter-productivity of grammar teaching".

"We believe that the kind of person who combines some or all of these characteristics will be an individual already predisposed to peace education, even though the above list was initially made to check positive signs of a potentially good teacher of English."

"Clearly, English as we conceive it is closely allied to peace education," Mr Crompton adds.

Mr Crompton later denied that he was trying to make students "use the party line". Above all, he wanted graduates with a "vigorous outlook" and a lively interest in their subject and children. "I would rather have a lively war-monger than a floppy peace-lover," he said.

But he deplored present exams because they tested only a candidate's memory and failed to assess whether he was "toughened" by the books he had studied. And he failed to see how anyone who supported exams, streaming and selection could combine those attitudes with a genuine respect for children.

Why handicapped need a new curriculum

by Diane Spencer

The curriculum for the handicapped child must be redesigned following the special education Act which came into force last April, an HM Inspector said this week.

Mr Freddie Green, staff inspector, said that the curriculum for handicapped children should be based on their needs, not on their disabilities, because the Act had abolished the 10 categories of handicap and replaced them with the concept of special educational needs.

He was speaking at the annual conference of the National Union of Teachers' special education section at Stoke Rochford, Lincolnshire.

The Department of Education and Science had updated its form for annual statistical returns on schools. From January, forms would ask special schools to give details of the complexities of handicap and to indicate which

type of curriculum they were offering, he said.

Curriculum types included: "mainstream plus support" for the average pupil who is physically handicapped in some way; a "modified curriculum" for pupils with some learning difficulties; and a "developmental curriculum" for severely retarded children.

An educational psychologist told teachers not to "retreat behind easy stereotypes".

Mrs Sheila Wolfendale, a principal lecturer at North East London Polytechnic, spoke on parental involvement in special education. She said too many teachers hid behind the excuse that "parents don't care", or "they are not interested".

Parents should be encouraged to become partners in their child's education as most of them did care. "They are experts on their own children and



Mr Bert Meakin, chairman of the union's special education section.

voiced concern about the amount of money being spent to implement the 1981 Act. In one authority, £80,000 out of an extra £150,000 allocated for special needs was being spent on bureaucrats, he said.

Legislation was necessary to prevent discrimination against disabled people, a fringe meeting organized by the Spastics Society at last week's



Mr Frank Dobson, MP for Holford and St Pancras.

Labour Party Conference was told. Mr Bob Waring, MP for Liverpool, West Derby, who is sponsoring a bill on anti-discrimination, said it was not good enough to educate and persuade people as the seat-belt law had proved.

"Discrimination against the disabled is as pernicious in our society as it is against women and blacks," he said.

"Skintint integration" could mean some disabled children being worse off than being kept in special schools, said Mr Frank Dobson, MP for Holford and St Pancras.

PM warned on pensions increase

The Prime Minister has been warned against attempting to increase the amount teachers contribute towards their pension fund.

Mr Nigel de Gruchy, deputy general secretary of the National Association of Schoolmasters/Union of Women Teachers, said that the last time the Government moved to raise the contributions made by teachers was during Mrs Thatcher's time as Education Secretary in 1972.

He said the contributions were raised from 6 per cent to 6 3/4 per cent in April. But that the Government had reversed its decision following opposition from teachers which had included a half-day strike and lobby of Parliament by NAS/UNT members.

Deadlock over lunch duties

Local education authorities may have to go it alone in an attempt to overcome the difficulties surrounding lunchtime supervision in schools.

Plans to set up a joint fact-finding mission between them and teachers' leaders floundered at last week's meeting of CLEA/ST, which negotiates conditions of service.

Teachers' leaders insisted that the

joint mission should not consider the question of the "role and responsibility" of teachers at lunchtime. They said that a declaration that supervision was voluntary should be inserted into the wording of a motion setting out the tasks of the mission.

The I.C.S. representatives could not accept this and it is thought they may now set up their own investigation.

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The broad experience waiting to be noticed

When Sir Keith Joseph announced recently that the broadening of A levels is again on the agenda, weary eyes were raised to the ceiling in the London office of the International Baccalaureate Organization.

After all, they discussed broadening years ago. Then they actually implemented it. And now they have a good decade's experience of how it can work in practice.

But do they listen, these secretaries of state and national exam bodies? No, the feeling is, they do not.

Mr Robert Blackburn, deputy director-general of the IBO, remembers that a plan to introduce the IB into 30 British schools and colleges for a trial six years was scotched by the schools committee of the Schools Council three years ago.

Had this project gone ahead, he points out, there would now be considerable hard evidence to contribute to the present round of the broadening debate, and gathered at no very great cost either.

Now the IBO will be pressing hard for this pilot plan to be revived, although how the proposal will be received is not known.

While the diploma has some friends in high places, and committed supporters who are very committed indeed, it is still viewed with deep suspicion by some who see it as a funny foreign qualification suited only to the children of overseas diplomats and businessmen.

For those who have never come across it, the IB is a two-year sixth-form course, designed originally to meet the needs of international schools whose pupils needed a qualification that would cross national boundaries, but now used far more widely in establishments as far apart as tough American high schools and elite academies in the developing world. Last year 110 schools entered 4,376 candidates for the diploma.

For the full diploma pupils take six subjects, one in each of the first and second language, mathematics, one science subject, one arts subject, and one other.

How these subjects are combined is up to the individual. A scientist, for example, might choose to take maths, chemistry and biology as higher subjects, and English, French and economics as subsidiaries, while an arts-orientated student might opt for En-



Heads down... 'IB' students at West London College.

Hilary Wilce discusses the nature and status of that 'funny foreign' sixth-form diploma, the International Baccalaureate.

glish, German and social anthropology as main subjects, with maths, biology and art/design as subsidiaries.

In addition, all pupils write an extended essay in one of their subjects, undertake a creative, aesthetic or social service activity, and study a social foundation course in the last year. Perhaps not surprisingly, critics of the scheme say it is too intensive, and suited only to that minority of students - the bright all-rounders. Some critics also allege that the content of certain higher subject courses such as physics lacks the depth of A levels.

However, advocates of the scheme point out that students can take any combination of subjects, without necessarily putting in for the full diploma. They were lyrical about the broad base of the scheme, which ensures a foundation of maths and language, science and arts, and about the enormous value of pulling everything together with the theory of knowledge course.

"TK", as it is familiarly known, is the cornerstone of the IB's attempt to offer a coherent and integrated education. It looks at language and logic, the formation of scientific concepts, the nature of historical knowledge, and how moral, aesthetic and political judgments can be made.

At Ingatestone Anglo-European School, in Essex, which offers sixth-formers a choice of A levels or the IB, the IB is now offered by about 15 schools and colleges. One particularly vigorous centre is Hammermith and West London College which has just over 140 students taking the diploma.

Some are mature students convinced by the IB's philosophy, some are bright students who lack expected O level qualifications, while others are the children of immigrants to Britain, from countries such as Spain, whose parents hope they will return to study in the home country.

The college has just started offering economics and has, according to Mr Jim Witham, head of the department of international education, "a very, very strong business studies option". One great attraction of the IB is its flexibility in accommodating and developing new subjects. At Atlantic College in south Wales, which helped pioneer the IB, an enormous amount of work has gone into developing and trying out peace studies and marine biology as subject options.

Atlantic College is an international institution, like most schools which offer the IB. At the International School of London the head, Mr John Parkes, a keen supporter of the system, says the diploma is just right for the needs and philosophy of his school, although he feels it would also suit a much wider range of schools in Britain.

Among the diploma's plus points, he says, are its breadth, particularly in maths, the TK course, and the freedom to take unusual subjects in the sixth-form slot. "These days there is a high probability that people will have to change their careers, so they need to go forward on a broad front."

He also feels it is easily adapted for a range of abilities. Some of his students are taking two higher subjects and four subsidiaries, while in the past students with poor O levels have managed to get the diploma.

However, he acknowledges that the

IB is complex to timetable and expensive, both in staffing needs and in the level of fees which necessarily reflect the air tickets and postage costs of a worldwide organization.

At present participating schools pay an annual subscription of £2,200 plus £40 a head for each diploma candidate, a level of fees that seems guaranteed to deter hard-pressed state schools from experimenting with the diploma.

In fact there has been a levelling off of the numbers of IB candidates in this country, despite a 10 per cent annual growth rate around the world, and some institutions have dropped the diploma course altogether.

At Nelson and Colne College in Lancashire, the diploma foundered from lack of interest.

"The schools were never terribly convinced of its value," says Mr Michael Leest, head of humanities at the college, "and in our rather parochial area the average student could not see any significant advantage to taking it."

Back at the IB's London office, Mr Blackburn thinks that the economic climate has been against schools experimenting with the IB. However, world-wide, interest is flourishing.

In the United States, where the number of non-English-speaking pupils is booming, many high schools are taking it up. The principal of a tough New York school recently told Mr Blackburn that he had programmes for the socially disadvantaged, the disabled, the ethnic minorities, "but until he started the IB he had nothing to offer his bright, older pupils."

In Europe, the Dutch, Swedish, Spanish and Norwegian Governments have all made a move towards offering the IB in selected schools, while enthusiasm is being shown throughout the developing world.

"We fill a gap between the old colonial qualification and the new national qualification," Mr Blackburn notes. "Most countries still want to send their top-notch students to study in Europe - although not, alas, necessarily in Britain anymore - and we provide a qualification which is acceptable and universally recognized."

This recognition is widely offered by British universities, despite occasional hiccups with medical schools insisting on three sciences at A level.

A recent survey of attitudes turned up a few grudging comments - such as Jesus College, Cambridge, which said the IB did not provide enough specialisation - but most have an open mind towards diploma candidates, and some are positively euphoric about them.

At a recent seminar on university entrance the admissions officer of Sussex University had a simple message for IB schools: "Send me all the students you've got". Perhaps even more surprisingly, Bath University, with its strong technological bent, was also enthusiastic.

Once found, it seems, faith in the IB is strong. "In something like 10 years," Mr Blackburn says, "no school which has abandoned its own national system for the IB has ever wanted to go back."

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Evidence has reached *The TES* of a new threat to free enterprise values in a sector of education which has until now been regarded as safe. While ministers concentrate on cleaning up polytechnics and the Youth Training Scheme, the rot is setting in among the infants.

It is understood that Her Majesty's Inspectorate is aware of the fundamental criticisms of the capitalist system of rewards that have been openly voiced by pupils of Forbush's Infants School in Staffordshire and the implications for the future of work-related education for six-year-olds.

But so far it has offered no guidance to the school's teachers who, in turn, confess that neither they nor their advisers seconded from industry have been able to counter the challenge.

The situation has arisen from a pioneering move by Staffordshire's education department to try to extend industry education, already well established in its secondaries, to its primary schools.

Mr Gordon Vincent, in charge of the county's Schools Council industry project, persuaded two local factories to cooperate in a project which took over from the normal curriculum for the top infants for most of last year.

The idea got the strong backing of Mr Mike Rogers, Staffordshire's chief inspector, who was interested in finding ways of combining secondary school work education with the role-playing used in primary schools.

The plan was that the class should study electric kettles, which are made in both factories, through every stage from their design to their eventual sale. The only opposition to the idea came from some of the parents, who initially suspected that the whole thing might turn out to be a public relations exercise for the companies and the management.

"They needn't have worried," says Mr Vincent. "You can't put anything across on six-year-olds". His experience with secondary pupils had done little to prepare him, in fact, for the searching questions which the children asked at every stage.

He added: "Unlike older pupils, they haven't yet learned to accept without question the established ways of doing things."

Designers from the companies showed the children how various designs are modelled, and they carried out their own market research - asking relatives what kinds and shapes of kettle they preferred, and testing out the performance of different models at a classroom tea party.

They visited the factories after a briefing on safety by electricity board officials. Then they set up two production lines in the school to make Lego vehicles. It was decided that assembly

kettles involved too many problems. The pupils were divided into purchasing managers, responsible for keeping up the supply of Lego bits, production line workers, and quality control inspectors. They analysed their own performance, identifying hold-

ups due to inefficient purchasing, managers who needed to be replaced, or to slow production workers in need of more training.

The difficult questions arose when the pupils were introduced to the economics of the operation, getting a supply of counters as currency from which they paid themselves.

The pupils asked why the production workers had to work a lot harder than the inspectors, but got paid less. The managers had the least work, and the nicest job, so why did they get paid most?

Mrs Dorothy Hale, the head, says: "We couldn't think of a way of answering that one, and the two industrial managers seconded to us didn't seem to want to, either."

The pupils' disquiet about how the fruits of their Lego labour were being divided was reinforced when they switched from a time-based pay system to piece rates, and the production workers started earning more than their bosses.

"I gather a lot of them went home and told their parents how unfair they thought the whole system was," says Mrs Hale.

But she and the class teacher Mrs Shirley Fitzpatrick are pleased at the way the project provided a vehicle for teaching the whole curriculum. Maths and writing were inseparable parts of running the operation, creative work was done in preparing marketing material, including tie-dyed T-shirts which sold widely to the factory staff and which the companies snapped up for their real promotional activities.

Even music was taught through a specially-composed work song and RE through prayers for the success of the enterprise.

The school hopes to repeat the project so that it becomes a routine for the top class, and Staffordshire is hoping to set up similar projects in another 15 primary schools.

A report has been sent to the Department of Industry, which backs industry education development projects. But the report does not go out of its way to draw the department's attention to the children's awkward questions.



Assembly time at Forbush's Infants school

Mark Jackson reports on industrial unrest among the country's youngest kettle makers

A little trouble at mill

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The pupils' disquiet about how the fruits of their Lego labour were being divided was reinforced when they switched from a time-based pay system to piece rates, and the production workers started earning more than their bosses.

"I gather a lot of them went home and told their parents how unfair they thought the whole system was," says Mrs Hale.

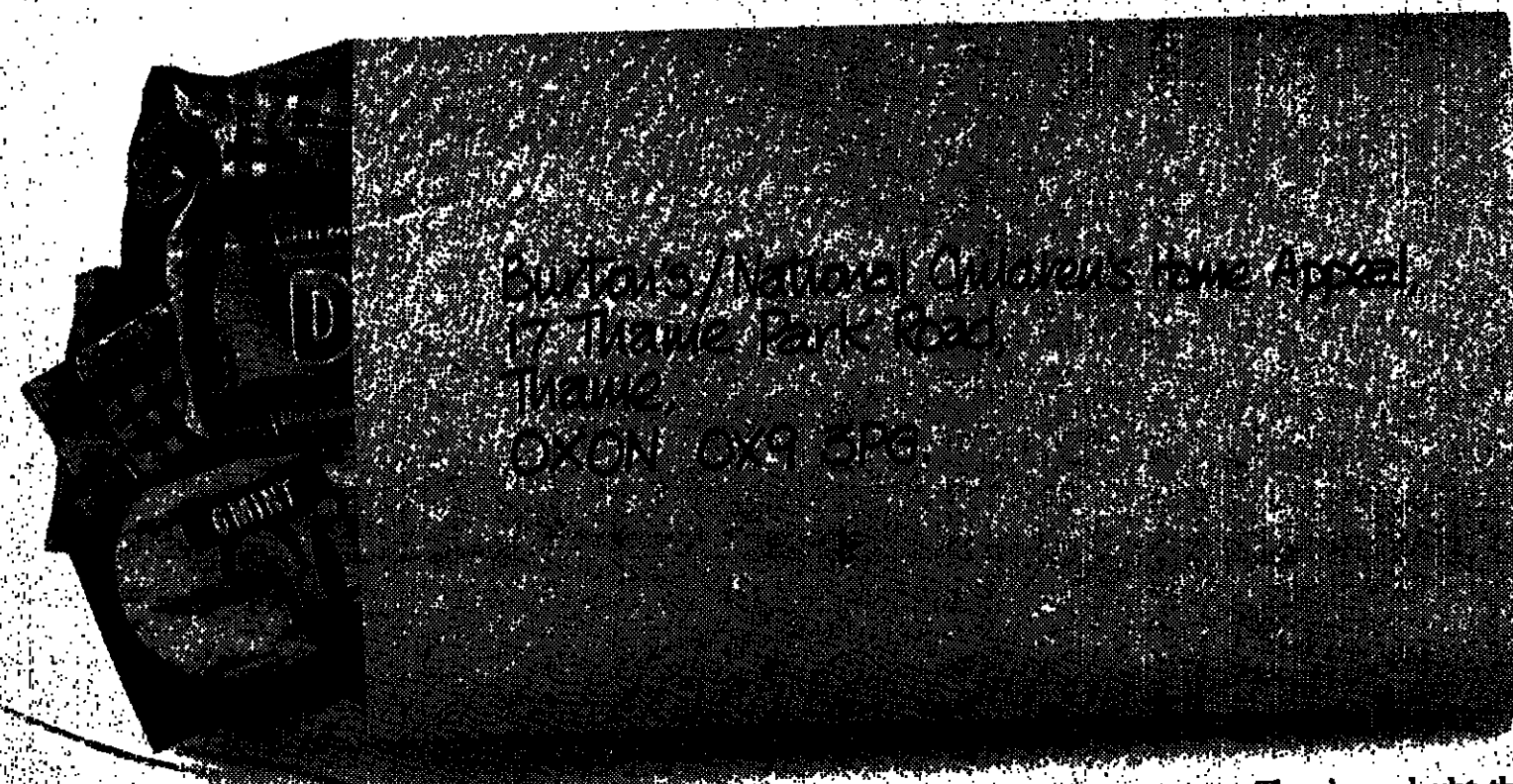
But she and the class teacher Mrs Shirley Fitzpatrick are pleased at the way the project provided a vehicle for teaching the whole curriculum. Maths and writing were inseparable parts of running the operation, creative work was done in preparing marketing material, including tie-dyed T-shirts which sold widely to the factory staff and which the companies snapped up for their real promotional activities.

Even music was taught through a specially-composed work song and RE through prayers for the success of the enterprise.

The school hopes to repeat the project so that it becomes a routine for the top class, and Staffordshire is hoping to set up similar projects in another 15 primary schools.

A report has been sent to the Department of Industry, which backs industry education development projects. But the report does not go out of its way to draw the department's attention to the children's awkward questions.

Your class could help feed, clothe and house a child with Burton's biscuit wrappers.



Caring for 7,000 needy children and their families obviously takes a lot of money.

So, we're giving the National Children's Home 1p for each of our biscuit wrappers that's returned to us.

And, with your help, we'll reach our target of £10,000.

We want you to encourage your class to save up Burton's wrappers. (Kids love our biscuits, so it should be easy.)

We'll send you a wallchart about the appeal, as well as a leaflet that fills in all the details. Simply write to the address on the envelope.

There's no doubt that it's a worthwhile cause, and one for which your class will have fun raising money.

After all, can you think of a more enjoyable homework assignment?

Burton's

UK/US SCHOOL EXCHANGE SCHEME

Enquiries are invited from teachers interested in forming a party of 10 pupils to visit an American high school at Easter for 4 weeks. Accommodation will be with host families. The American participants will wish to visit this country for a similar period at the end of the school year or in the following October/November.

Host schools in Britain and America provide a varied programme of activities in and out of school. Obtain details from: SPECIAL PROGRAMMES CENTRAL BUREAU FOR EDUCATIONAL VISITS & EXCHANGES, SEYMOUR MEWS HOUSE, SEYMOUR MEWS, LONDON W14 9PE TEL 01-488 5101



High worlds over language

by Nick Wood

The Conservative education spokesman in Brent has accused the authority of "putting Gujarati and Urdu before the teaching of French".

Mr Arthur Blissett's outburst came after the ruling Labour group referred proposals to spend £40,500 on employing up to 26 foreign language assistants in the authority's secondary schools.

"This is a typical piece of short-sightedness on the part of the Labour group," Mr Steel said. "They are prepared to spend vast amounts of money on mother tongue teaching, which has no commercial application or relevance for the majority of people in this country. Yet, they deny the children of our borough an equal opportunity to perfect European languages, which have far greater relevance to our future."

An authority spokesman said the finance and building committee would consider the proposals in January.

Madeley Court implements changes

by Virginia Makins

A Shropshire County Council members' review group, set up after the publication of the controversial HM Inspectorate report on Madeley Court comprehensive, has recommended that the authority's advisory service should be strengthened and given a more inspectorial slant.

It also calls for more careful appointment procedures for headships, with informal channels for the appointing bodies to meet candidates, personal contact with referees, and attention to the DES POST study on appointments.

The report states that Madeley Court had the full support of its governors, that advisers' reports on the school covering maths, science, music and art were "not unfavourable in 1981", and that "the suggested existence of a significant decline in parental support for Madeley School is not borne out by the figures".

The report says there were "pre-

vious few" signs of worry about the school before 1980, apart from complaints by the craft adviser and non-specialists helping in the teaching and the head's "obvious preoccupation with the development of a community role for the school in a way which was equally supported by its governors and equally plainly contrary to the I.e.a. policy".

However "staff disquiet" in June 1980 had led to a curriculum review by advisers, which led to senior officers calling in HMI. At the time there were five vacancies in "the Shropshire advisory team, and the team did not consider that Madeley Court merited annual attention."

The report also considers the relations between the governing body and the authority. It quotes the responsibility of the head to the governors, but says: "We think it important that the I.e.a. should not be taken into this provision an unrealistic expectation of the cap-

Barnsley unlikely choice for scheme

sley, Devon and Hertfordshire - to see how fine words of the original submissions to the

In the first year all pupils will cover three areas of learning: technology at work; the world of business; and personal and community services. In the process they will have to undertake group assignments, a spell away from home, and visits to local employers. Throughout the scheme the pupils will

the enthusiasts believe that is outweighed by the evidence that the honoured ways of doing things in education can change.

"The money has been offered and we have to prove what we can do," says Mr Pryke. "It's a style of operating that's galvanizing. Whatever happens, I'm sure it will be a permanent one, 'anything is possible' will be the attitude across the whole system."

Dr Mylward agrees, saying, "Education will never be the same again. You compare TVEI with the 1960s and

Choosing TVEI will simply be part of the normal options procedure and



Nor is he confident that they have met MSC guidelines on the balance of sexes. Mr Joe MacRory, the project co-ordinator, said that it would be

There was no question of high or status attached to TVEI schools. It was important in an age of parents.

Pupils are being taught in their schools for the first two years, to some extent by existing staff, but mainly by a team of six specialists who will

two computer rooms. The school already gives the subject high priority.

At the opposite extreme from Prior

However, the consortium idea has been shelved – and it faces opposition with the result that a pupil at King's College, for example, can only opt for technology while a pupil at Westminster school can only choose administrative services.

In some cases the schools will simply be expanding an expertise they already possess. In others, JVEI work will

Kent joins private list

by Richard Garner

Kent County Council this week joined the growing list of Conservative-controlled local education authorities planning to put their school cleaning services in the hands of private contractors.

The council's education committee voted on Monday to invite private firms to tender to carry out the work after being told that this could save more than £1m on the £6m wage bill for the cleaning service.

The education committee has agreed that residential special schools and small village schools could be exempted. Union leaders have been told that any alternative plan they put forward will be considered.

The education committee, which made its decision at the same time as the Adam Smith Institute, an independent right-wing "think-tank", published a report calling for a legal obligation on local authorities to seek private tenders for services such as school meals and cleaning, believes the cleaning service could be in private hands by next September.

British child care record under fire

by Nick Wood



Lord Tony Pandy: shattered illusion

The National Children's Home, a charity that looks after young people, this week published a booklet bringing together a mass of statistics on the social circumstances of the nation's children.

Lord Tony Pandy, the new chairman and formerly Mr George Thomas, Speaker of the House of Commons, said the figures "shatter the illusion of Britain as a nation which loves children."

According to the latest estimates, there are 13.7 million children under the age of 18 in Britain. Of these, approximately 1 in 140 is in care for a variety of reasons including parental neglect or ill-treatment, homelessness or because they are guilty of an offence. One child in 1,400 is in a home because he or she has been abandoned by his or her parents.

One child in eleven now comes from a broken home, and in 1980 in England and Wales 164,000, roughly 1 in 90, experienced the trauma of family breakdown resulting in divorce.

Crime rates are also high among the young. In 1981 in Britain, 230,000

children aged 10 to 17, about 1 in 30, were prosecuted or given a formal warning by the police.

Children do not escape the effects of poverty. According to the latest figures, 1,750,000 children, nearly one in eight, are from families living on supplementary benefit.

Commenting on the figures, Dr Derek Steinberg, a consultant child psychiatrist at London's Maudsley Hospital, said that Britain's problem was that it failed to deliver a broadly uniform standard of care for young people.

In some parts of the country, facilities were very good; others, particularly the inner cities, were unable to cope with the "appalling" multiple deprivation - poverty, bad housing and schools, crime and unemployment - that confronted children. In this respect Britain compared poorly with other developed countries.

But it was also true that more children were better looked after than at any other point in British history. Lord Tony Pandy also described perinatal and infant mortality rates,

12.8 and 11.2 per 1,000 births in 1980 as high. His remarks brought criticism from Dr Tony Smith, deputy editor of the *British Medical Journal*.

Dr Smith pointed out that rates in Britain compared favourably with those in other Western European countries and that they had been on a downward trend since 1970. Because about 1,000 deaths per year were caused by lethal congenital malformations of vital organs such as the heart and lungs, Britain's perinatal mortality rate was approaching an "inevitable minimum".

"We couldn't have done much better, especially since the NHS has had few extra resources in the last few years", he said.

But it was a "scandal" that the rate for social class 5 was twice that of social class 1 and Lord Tony Pandy was quick to draw attention to this fact, he added.

Children Today, available free from the National Children's Home, 10 Highbury Park, London N5 1UB.

Social class the main reason for staying-on rate variations

by Biddy Passmore

Social class and ethnic origin are the main factors explaining differences in staying-on rates, according to the latest research to emerge from the Department of Education.

Between 1978-79 and 1980-81, class explained more than 70 per cent of the variation between education authorities in the proportion of 16 to 19-year-olds taking full-time GCE or CSE courses at school or college.

But it had less effect on full-time participation rates for all types of course, where it accounted for some 60 per cent of the difference, and less still on study in schools alone, where it explained 55 per cent.

These figures are roughly the same as those found in an earlier DES survey covering the years 1976-77 to 1978-79.

For less important than class, but still significant, was the proportion of non-white and non-British born young people in the area. This accounted for a further 5 to 10 per cent of the variation between councils in education participation by 16 to 19-year-olds.

When they analysed the results for 16-year-olds alone, the DES statisticians found the effect of the two factors was similar but slightly weaker, accounting for 10 per cent less of the differences between authorities.

Their summary emphasizes that the two main factors identified do not necessarily determine the participation rate; they may stand proxy for other factors such as parents' attitudes to education.

Once class and ethnic origin had been taken into account, the proportion of young people unemployed in the area had no statistically significant effect on participation. Nor had any other factor such as poor or crowded housing, or the proportion of one-parent families.

The study did not find that any factor explained inter-authority differences in participation in part-time study or full-time non-advanced study outside schools.

The more southerly the region, the more young people tend to take part in full-time education, the study shows, although the south-west was close to the national average (24 per cent). Other exceptions were the north-west, where participation was higher than in other northern regions, and East Anglia, where it was lower than in other nearby regions.

Participation in part-time courses followed the reverse pattern: higher in southerly regions (around 15 per cent) than in the south (10 per cent) although the figure for the suburban south-east was higher, at 12½ per cent.

The figures cover participation only in state education, so affluent authorities like Richmond in Greater London and Trafford in Greater Manchester may appear to have low participation rates because parents pay for private education, the statisticians explain.

Comparing their results with earlier findings summarized in a bulletin in 1979, the statisticians say the effect of the socio-economic factor remained largely consistent over the five-year period 1976 to 1981.

Unlike the last study, this bulletin includes an analysis of the 16-year-olds as well as the 16 to 19-year-olds. This time class and the ethnic minority factor appeared to make less difference at the age of 16, accounting for 10 per cent less of the variation between local education authorities. For example, in 1980-81, socio-economic class explained 62 per cent of the difference between L.E.A.s in the proportion of 16-year-olds taking GCE or CSE exams and this rose to 67 per cent if combined with ethnic minority factor.

Participation in education by the 16 to 19 Age Group and its Association with the Socio-Economic Characteristics of Areas: Statistical Bulletin 12/83, available from the Statistics Branch, DES, Elizabeth House, York Road, London SE1 7PH.

Social class, ethnic origin and full-time participation of 16 to 19 year olds in CSE and GCE courses in schools and colleges in English education authorities

	% Household heads in non-manual social classes (1971)	% Age 0-17 non-white and non-UK born	Percentage participation rates		
			1978-79	1979-80	1980-81
North					
Cleveland	30.5	2.88	13.2	13.5	14.2
Cumbria	35.0	1.41	12.5	13.1	13.5
Durham	32.0	1.28	10.3	10.8	10.7
Northumberland	32.9	1.68	16.7	17.4	19.0
Gateshead	30.3	2.11	11.5	11.8	12.3
Newcastle upon Tyne	37.3	4.83	13.5	14.1	15.2
North Tyneside	35.9	2.25	17.9	18.4	18.4
South Tyneside	38.3	1.80	10.3	11.4	11.8
Sunderland	24.8	2.13	10.3	10.7	11.3
Yorkshire & Humberside					
Humber	33.5	1.76	12.8	13.1	13.1
North Yorkshire	42.9	3.27	14.8	14.7	15.2
Barnsley	20.7	1.76	8.4	10.3	10.1
Doncaster	25.2	3.14	16.1	16.1	16.8
Sheffield	25.8	2.67	12.8	13.3	13.9
Bradford	31.0	6.33	13.3	13.8	15.0
Calderdale	33.5	16.75	14.8	15.1	15.3
Craven	30.9	5.52	15.1	15.7	15.9
Leeds	37.1	8.27	15.5	16.4	16.8
Wakefield	26.0	2.09	11.8	11.1	11.2
North West					
Cheshire	39.5	3.07	18.7	18.2	19.5
Lancashire	37.0	6.84	16.7	16.8	18.7
Knowsley	29.9	1.90	11.8	11.3	11.1
Liverpool	32.5	3.49	14.2	14.8	14.7
St Helens	27.4	1.48	17.1	17.3	17.2
Sefton	46.1	2.17	21.2	22.2	23.2
Wirral	44.2	2.50	18.0	20.3	20.1
Bolton	36.2	10.40	16.3	16.4	16.5
Salford	40.0	4.85	15.4	16.4	18.5
Manchester	32.8	15.88	14.0	13.7	14.0
Oldham	27.3	6.85	11.3	11.4	12.1
Rochdale	31.8	7.19	13.5	14.4	14.7
Salford	30.0	3.16	16.5	11.9	12.0
Stockport	48.1	3.37	22.2	20.7	21.7
Tameside	30.3	4.22	11.8	12.8	13.0
Trafford	53.4	7.65	22.0	22.0	22.4
Wigan	26.1	1.60	12.8	13.2	13.3
East Midlands					
Derbyshire	31.7	6.12	19.8	19.3	19.3
Leicestershire	36.5	13.06	17.2	17.3	18.0
Lincolnshire	36.8	2.97	14.8	15.4	16.5
Northamptonshire	32.6	5.59	14.7	14.3	15.1
Notts	32.9	6.25	14.7	15.9	15.8
West Midlands					
Hereford & Worcester	40.3	3.17	15.8	15.8	16.7
Staffordshire	38.5	4.14	16.8	17.2	17.6
Stafford	32.6	3.49	14.2	14.8	14.9
Warwickshire	36.8	7.17	16.8	16.3	18.2
Birmingham	32.6	22.75	17.0	16.7	17.0
Coventry	30.5	15.01	14.7	14.7	14.1
Dudley	35.0	5.88	14.0	14.8	15.4
Sandwell	22.4	17.77	11.8	12.1	12.4
Solihull	43.1	4.11	17.9	19.6	18.8
Walsall	30.4	10.83	14.8	14.1	14.5
Wolverhampton	30.9	25.70	17.8	16.5	17.9
East Anglia					
Cambridgeshire	40.6	7.24	18.1	15.4	16.5
Essex	36.4	2.54	18.3	14.3	15.0
Suffolk	36.9	6.80	12.0	12.5	12.7
Greater London					
ILEA	44.1	28.29	16.7	15.8	15.8
Barking	25.1	6.88	10.5	10.2	10.8
Barnet	61.9	21.45	27.8	27.8	28.4
Bexley	49.3	8.01	22.0	21.7	22.0
Brent	48.3	49.39	26.7	26.3	26.2
Bromley	53.8	7.54	26.7	26.5	24.6
Croydon	61.4	17.54	21.9	22.0	23.0
Ealing	47.1	38.00	21.9	22.1	21.8
Harrow	46.8	15.99	21.7	21.7	21.8
Hillingdon	43.0	41.81	22.4	19.9	20.2
Hammersmith	61.3	16.40	24.8	24.4	26.3
Havering	45.9	3.80	17.8	17.6	18.4
Hounslow	49.8	10.95	18.6	18.4	18.8
Islington	47.0	23.12	22.2	22.2	21.1
Kingston upon Thames	38.5	5.88	24.2	23.5	24.8
Merton	61.8	20.43	22.4	24.0	23.5
Richmond	28.6	34.55	15.4	15.8	16.1
Redbridge	64.3	19.83	22.2	22.2	22.2
Sutton	53.3	11.84	23.5	21.3	18.5
Waltham Forest	57.7	6.83	21.2	21.5	22.8
Other South-East					
Bedfordshire	32.8	11.30	15.8	16.8	17.1
Berkshire	46.9	3.08	18.8	18.2	18.3
Buckinghamshire	49.8	7.82	20.6	18.1	18.5
East Sussex	51.8	3.76	17.0	17.8	18.4
Essex	45.9	3.66	17.3	17.8	17.6
Hampshire	43.3	4.27	18.5	17.0	17.6
Hertfordshire	60.2	5.72	22.2	23.0	23.5
Kent	48.9	2.77	16.1	16.1	16.1
Leicestershire	44.8	4.73	18.4	18.9	18.5
Northamptonshire	44.5	8.87	18.3	18.6	18.9
Oxfordshire	58.3	6.38	22.4	22.5	22.5
Surrey	53.9	3.70	18.1	20.3	21.4
West Sussex					
South West					
Avon	44.8	5.03	18.0	15.7	16.7
Devon	36.3	3.17	17.3	17.6	16.6
Gloucestershire	42.9	2.82	16.8	14.0	14.5
Dorset	47.6	4.18	16.5	15.5	16.8
Wiltshire	41.7	4.19	16.5	17.1	17.1
Wiltshire	40.8	2.15	14.1	15.3	15.2
Wiltshire	37.8	6.51	16.4	14.8	15.2

Chambers to retire from NUT executive

by Richard Garner

Mr Jack Chambers, who once described himself as the "most left-wing President of the National Union of Teachers has ever had," has decided to quit the union's executive after 14 years' service.

Mr Chambers (pictured right), who was first elected to serve Hampshire and the Isle of Wight on the executive in 1969 and was union president last year, was one of the prime movers in the campaign to have discussions on disarmament pushed to the fore at NUT conferences.

He said he had decided to resign because his employers, Hampshire County Council, had raised objections to allowing both him and Ms Margaret Raff, his successor as executive member for the area once he moved on to presidential office, time off for union duties. Both teach in the same department at Regents Park Secondary School in Southampton.

Mr Chambers, who is 61, added that his decision had also been prompted by criticism from "right-wing elements"



within the Hampshire association of the NUT. He said it would give him time to concentrate on his appointment to the area manpower board of the Manpower Services Commission and work with the City and Guilds Institute on developing the curriculum for the 17-plus.

His decision will also enable Ms Raff to stand for the Hampshire executive seat if she is unsuccessful in her attempt to become treasurer of the union in this autumn's elections.

One-third of the union's 42-member executive will not be seeking re-election next spring. Those standing down include at least three other former presidents of the union - Mr Jim Murphy, Mr John Gray, the retiring treasurer, and Mr Alf Budd.

ILEA class sizes drop

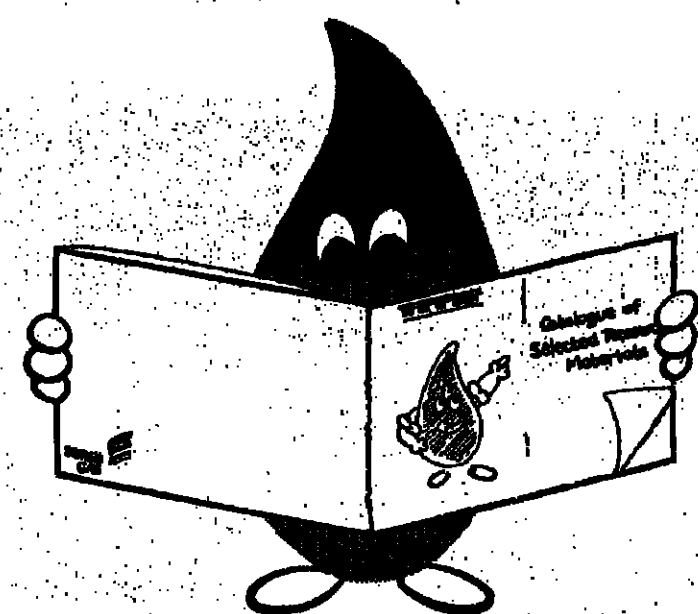
The average size of primary school classes in inner London, has dropped to 19.6 - a slight reduction over last year's figure of 19.8. In 1977 the figure was 22.1.

The number of classes with more than 30 pupils has also dropped - from 250 (3.7 per cent) in 1982 to 182 (2.8 per cent) in 1983. The smallest average

classes are in Wandsworth (18.7) and the largest in Greenwich (20.9).

Mr Barrie Stead, ILEA's schools sub-committee chairman, said the authority was giving priority to protecting the curriculum as primary schools got smaller, and had provided for 75 new staff posts this year.

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RESOURCEFUL TEACHING AIDS - FROM THE GAS PEOPLE

Will you be a winner in The Times computer competition next week?



Yasmin Al-Daptary, aged 10, from Solihull

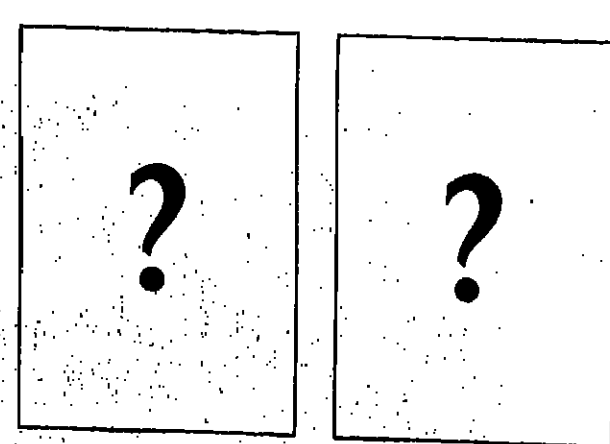


Peter Gutfreund, aged 16, from Bristol

Yasmin Al-Daptary and Peter Gutfreund are the second winners in The Times Classroom Computer Competition. Both of them have won an Atari 600XL computer for their schools and an individual prize of The Times Atlas of World History.

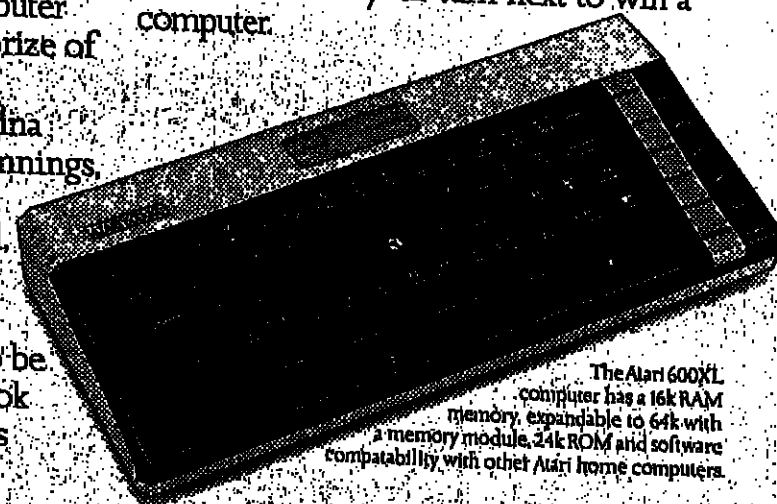
The 8 runners-up - Mary Christina Paulson-Ellis, Dawn Goody, David Jennings, Timothy Golden, Martin Turnidge, Timothy Richardson, Jeremy Cielgard, and Julia Maddocks - have each won a copy of The Times Atlas.

There are still plenty of prizes to be won, over the next seven weeks, so look out for the start of next week's schools



competition in the Computer Horizons pages of The Times on Tuesday.

It could be your turn next to win a computer.



The Atari 600XL computer has a 16K RAM memory, expandable to 64K with a memory module, 24K ROM and software compatibility with other Atari home computers.

The Times puts computers into focus. 20p



Saving face in job search

JAPAN

As competition for jobs mounts in Japan, graduates fear that their degrees have too little impact with prospective employers. Hoping that their face will be their fortune, some students have been visiting plastic surgeons before going for interviews.

One specialist hospital carried out cosmetic surgery on 5,000 students last year and expects the number to double this year, according to its deputy director. He added that students now account for 45 per cent of the hospital's patients, compared with only 15 per cent in 1972.

Another hospital claimed one in 10 of the students involved were men. Apparently, student

operations significantly increase when employment prospects are bleak. It happened in 1974, after the first oil crisis, and again in 1978, at the time of the second one.

An article in the Japanese magazine *Shukan Post*, said a survey of seven plastic surgery hospitals showed that women who receive operations to improve their appearance are recruited by leading private companies.

Although employers deny the assertion that looks count in an interview, some students are not taking any chances and intend to invest up to 400,000 yen (£1,150) in having their noses realigned and their eyes rounded.

Barbara Casassus

Union loses test case over sacking

The Swedish Union of Teachers has lost an important test case in the Labour Court that could lead to a wave of sackings.

The union had contested the right of Ornskoldsvik, a municipality in the north of the country, to dismiss 15 teachers who were sacked in May because of falling rolls.

According to the Central Bureau of Statistics, 100,000 fewer children will enter primary school by 1988 due to the declining birthrate and 10,000 teaching positions could disappear as a result.

Swedish job security legislation rules that employers must have legitimate cause to sack workers, and with the strong trade union movement pressure to fight such cases, sackings have hitherto been rare.

Ornskoldsvik municipality lacked sufficient reasons for the dismissals because other municipal councils - especially those with non-socialist majorities - have been eagerly awaiting the court's finding. A wave of dismissals could follow, although the Labour Court stressed in its judgment that each future case would have to be tried on its merits.

Ornskoldsvik originally sacked 22 teachers, but seven were later reinstated after negotiations. The union had asked for a ruling that the remaining 15 teachers be reinstated and compensated.

Christopher Mosey

Education Ministry is to set up a special unit of hand-picked teachers to give lessons to the super-bright pupils

Streaming is stretched to segregate the gifted

by a special correspondent

SINGAPORE

After three years of agonizing, the island state of Singapore has come down on the side of segregation for its gifted children.

Educationists made extensive studies of Britain, Israel, Russia and the United States before deciding that those with special talents are best taught separately.

The principle of segregation is nothing new to Singapore schools. Children are already streamed as early as nine. To be given more intelligence tests and the results used to decide which class they should be placed in.

The decision is an important one for Singapore because the island's economy relies heavily on selling to high technology foreign investors a highly educated local workforce.

To get the project underway, a special gifted children unit has been set up at the Education Ministry, which will hand-pick a core of teachers to give lessons to the super-bright.

To identify gifted children, all nine-year-olds will do a common test based on 50 questions on mathematics and another 50 on the first language (usually English). This will be followed by three intelligence tests at the age of 12.



All nine-year-olds will do a common test.

The first 200 pupils will be taught in smaller classes of 25 each in four top schools. (The average class size is 42.) The focus of gifted classes will be the children - with teachers doing less talking and the pupils discovering and working out things for themselves.

At primary level, gifted children will have to study an extra subject, social studies. Normally, only four examination subjects are taught - English, a

second language (usually Chinese or Malay), mathematics and science.

To stretch their abilities at secondary level, those gifted in the sciences will have to do an extra humanities subject while those in the arts stream will study a compulsory science subject. All gifted children are expected to become mentors and help tutor younger students in school.

But just in case gifted children become too big for their boots, their attitude towards the rest of society will be carefully monitored and, if needed, they will be given a liberal dose of moral education lessons to instill a "sense of reality, wholesome humility, self-respect and respect for others", according to the Education Ministry.

Neither will the project intensify competitiveness in an already over-competitive education system, because, according to the Education Ministry: "Studies show that gifted children are highly competitive, sometimes against themselves. They want to do better. The teachers will be channeling this energy properly."

As for criticisms that the system will breed elitism, the Ministry said: "This is not elitism based on privilege and inherited wealth, which is wrong; but on merit, which is fair. An equitable education system, gives each child an appropriate education, not necessarily an equal one."

Taking the long course

WEST GERMANY

Caroline Cuss explains why universities are overcrowded

West Germany's universities are overcrowded than ever, and the situation has been made worse by the lengthening of courses since the mid 1970s.

A recent report by the University Information System (UIS) reveals that the average length of time a student spends at university has risen from just over five and a half years to just over six and a half years.

The increase in the average length of courses is largely due to a change in the study habits of trainee teachers - 190 graduates took on average 9.8 semesters to study their chosen subject, as opposed to 8.6 semesters in 1974.

In the main, this is attributable to a considerable rise in the number of student teachers on the longer grammar school courses, and a corresponding reduction in the number on the shorter courses for primary and secondary modern school teachers.

But it is also well-known that graduates who do not immediately find a job after their final exam may stay on for a second course.

Another problem which is causing some anxiety is the difficulty in assessing the comparability of results between universities.

According to figures from the National Office for Statistics for 1982, 92.7 per cent of all university graduates passed their final exam. However, pass rates vary considerably between both universities and faculties, with 75.8 per cent of law students passing, while the success rate among student teachers for primary and secondary modern schools was 95.2 per cent. Grammar school teachers did slightly less well; only 90.5 per cent of these passed.

Herr Hans Schwieler, Minister of Science in Northrhine-Westphalia, is concerned about the high incidence of good results in his Land, and has commissioned an inquiry into marking patterns.

Czech minister

Mr Milan Vondruska is the Czech Minister of Education in Czechoslovakia, not the federal Czechoslovak Minister of Education, as reported in our issue of October 7.

Teacher unions boost Mondale's presidential hopes

UNITED STATES

Peter David on why the teachers' associations are among the most powerful of the Democratic king-makers.

President Reagan's campaign to portray himself as the champion of educational reform does not appear to have impressed teachers.

The National Education Association, America's biggest teachers' union, announced last month that it would support former Democratic Vice-President Walter Mondale in the next election. And the AFL-CIO, the parent body of the American Federation of Teachers, has also announced its support of Mr Mondale.

President Reagan could never have harboured any hopes of winning the support of the NEA, which has been an implacable foe since the Administration came to power in 1980. The massive union - with more than the million members, second in size only to the Teamsters - has fiercely opposed the President's plan to close down the newly created Department of Education and to give tax incentives to parents who send their children to private schools.

A sign of the stormy relations between the Administration and the union was that President Reagan, unlike the six Democratic contenders for the Presidency, did not bother to reply to a detailed questionnaire circulated by the NEA to help it decide which candidate it would back. The fact that all six Democrats replied, and submitted themselves to a personal interview with the union's president, Mary Hatwood Futrell, says less about their interest in education than it does about the huge political clout of the union.



Walter Mondale (left) and Jimmy Carter both have reason to be grateful to the NEA.

Schools refuse to submit reports on asbestos danger

The huge cost of removing asbestos from educational buildings is causing many school districts to refuse to comply with a federal law compelling them to report on the quantities of asbestos in their institutions, according to an internal Department of Education report leaked in *The New York Times* last week.

The report estimates it will cost an average of \$100,000 to remove potentially dangerous asbestos from schools, leaving the national bill to about \$14,000. Under present legislation, however, the Federal Government does not have to pick up the tab and many states and school districts cannot afford to carry out the work.

According to the Environmental Protection Agency, well over half the nation's schools - public as well as private - have failed to inform parents about asbestos hazards in their buildings.

In a first step to muster some federal dollars for the removal of asbestos, the House of Representatives called recently for the creation of a \$50m fund for low-cost loans to districts which needed money to remove asbestos. A similar measure will have to be approved by the Senate before it can be implemented.

At present the only law on the statute books regarding the problem is the 1980 Asbestos School Hazard Detection and Control Act. The Act does not require schools to remove asbestos, but asks them to inspect for the presence of crumbling asbestos and announce whether any has been found. It is crumbling asbestos, commonly used for insulation of pipes and ceilings, which releases fibres that can be breathed in and remain in the lungs.

The counter HE revolution

Too much concentration on higher education has lowered the overall standard of Chinese schooling, according to education minister He Dong-chang.

Announcing reforms for China's middle schools, Mr He called on them to increase their efforts to train more students for employment rather than higher education. Schools should not be judged by how many students they send to university, he said.

Following the Cultural Revolution, when an estimated one million college graduates were "lost", the leadership stressed the need to build up the country's intellectual forces.

Key schools were established from nursery to university level, which received greater resources and were allocated the best teachers and brightest students. The aim was to produce graduates of high calibre who would then compete for scarce university places.

Jane Marshall

Ministries to develop high-tech faculties

ITALY

For the first time, future expansion of Italian universities will be governed by specific faculty development programmes. A new law, which opened 2,000 positions for full professors and 2,000 for associates, lays down rigid conditions for the distribution of these posts.

The legislation, a joint effort of the ministries of education and research, was passed this summer and now defines four levels of faculty development status: "static", "normal", "accelerated", and "forced".

The object is to inject the faculties the authorities want to expand - that is, the so-called "forced" faculties - with the most incentive by assigning them most of the new posts. At the same time they will hold back assignments in faculties considered "static".

Some of the privileged faculties are electronics, energy technology and electronic engineering, the underprivileged are, for example, arts faculties and jurisprudence, both of which have experienced a drop in enrolment in recent years and which now carry the dreaded label of "static".

Italy's universities employ about 30,000 full and associate professors and the figure does not include the thousands of research professors, the first step in a university career. Now does it include the many named positions covered by contract professors and lecturers.

This is not considered an unrealistic number when weighed against the annual enrolment rate of about 200,000 students in 1982 for all Italian universities.

In a country where university chairs and associate professorships are notoriously distributed according to patronage and privilege, the "levels-of-development" criterion was hailed by many as a step towards some objective guidelines for the creation of new posts.

"The amazing thing," declared a Milan University professor "is that the concept of planned development has always existed in the text of university reforms in the past but it has never been spelled out and has, therefore, largely been ignored. This should also put an end to faculties where professors outnumber the students."

The new law will boost the career prospects of young researchers in scientific faculties. At the same time many talented professors in the so-called "static" faculties will see their careers come to a sudden standstill.

Like all Italian laws, however, this one too contains a safety valve of sorts: the development programme is scheduled to come up for revision every two years.

Rita di Giuseppe

The OECD points the way forward for the beleaguered universities of the 1980s

Excellence vies with equality

by Anne Corbett

Each year the higher education race becomes more pronounced. And each year the morale of the sector as a whole declines. Decreasing resources and public esteem, and increasing conflict with government, take their toll. It is a familiar English story.

It is also an international phenomenon, with some countries living much more openly with tension than Britain. The prospect of smaller 18-year-old age groups from 1985 adds to higher education's gloom.

This context has led the Organization for Economic Cooperation and Development to launch a major and informative study just published as *Policies for Higher Education in the 1980s* (OECD 1983). The report draws on an intergovernmental conference held in 1981 and comparative research. Its author: the OECD's resident higher education specialist, Dorotea Furth.

It is a revealing commentary on the way the market has been operating as higher education policy-makers have been fumbling with issues of excellence and egalitarianism and role.

The last decade has been marked everywhere by a more diverse intake into higher education and more diverse patterns of study. Logically this would lead, as the author puts it, to higher education being "viewed less as the apex of a consecutive system of schooling and selection, more as an area in which a plurality of groups, values and functions co-exist".

In fact, economic crisis and increasing employment problems for graduates have kept an apex-dominated pattern in place, though some of its

constituents have been changing. Now that higher education of itself does not ensure access to the elite, students go for the safest options. Increasingly, these include selective vocational institutions which in the past have ranked below universities, and more professionally-oriented courses in universities themselves.

The pattern is more evident in continental Europe, where universities are less overtly selective, than in Britain. But the price to pay everywhere is high in terms of traditional studies in the humanities and pure sciences, and institutional vitality as schools and sectors of higher education gear themselves to the safe bets.

The OECD report advocates a gentler use of the strings which governments attach to higher education financing, more awareness of the effects of hidden forms of selection on secondary schools and higher education, and more efforts to prevent the obvious market-dominated polarization: between a small, youthful, elite full-time sector and a larger, older part-time sector.

By chance, the OECD report is complemented by a new French study which puts some of the conflicts into highly immediate terms, comparing the French system with the American, Russian and Polish versions (*L'enseignement supérieur et son efficacité*, Pascale Gruson and Janina Marzouk, Editions de la Documentation Française, 1983) and ending with the provocative thought that the strifeful Polish system is better adapted to the needs of the economy, and is more egalitarian than the French.

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Cold comfort in the classroom

LEBANON

Alan Phillips finds that Palestinian refugees doubt the value of study

The new academic year opens to a mood of fear and dependency in the Palestinian community in Lebanon.

Traditionally, Palestinian refugees have reconciled themselves to their fragmented lives by placing great emphasis on the education of their children, but this is now being questioned in a demoralized community, where hopes for the future are fading, and the rewards of education are no longer what they were.

Education has been one of the outstanding achievements of the Palestinian people in exile, and they have managed to reach levels of skill unmatched in the Arab region.

The infrastructure required to build up these levels has been impressive, mainly thanks to the United Nations Relief and Works Agency, but Lebanon has been severely damaged in the last year: schools and colleges have been bombed, teachers and students

killed, and the community shattered. Recent fighting has temporarily closed 40 of 86 UNRWA schools. Most of these are around Beirut and although a few have been damaged, most will open to receive the 30,000 pupils when a prolonged ceasefire is seen to be holding.

However, five schools in the camps near Tripoli have little prospect of opening soon. They are occupied by displaced refugees (mainly fleeing from the south and from fighting in the Beqaa, who have nowhere else to go). Similarly, it is unlikely that the Israeli Defence Forces will relinquish the school in Tyre that has become a military headquarters.

Palestinians do not wish to remain in Lebanon, a country in which they are unwelcome and constantly in danger. Yet there is likely to be no alternative as the prospects of return to Palestine, with the removal of the PLO, are dim. From southern Lebanon, and as Israeli settlements are hurriedly built in the West Bank Territory.

Damaged schools can be repaired, and the 55 teachers imprisoned by the Israeli defence forces may be released. But fundamental changes in education



An UNRWA classroom near Tyre makes a bleak lunchtime setting for this Palestinian refugee family.

tion, sorely needed now to respond to the new needs of the community, pose greater problems.

Palestinians and Lebanese need to learn to live together but they are completely separated in different school systems, a different language is used, and resources are not shared. Schools could help to build links between communities, but generally take no part in extra-curricular activities or adult education.

The importance of a friendly and secure environment is crucial for the development of children in refugee camps. This is clearly recognized by Palestinian mothers who place a high priority on kindergarten. Yet the formal education system, the few that do exist, are supported by voluntary agencies.

The education system is no longer a panacea nor are qualifications a passport for Palestinians living in the Middle East.

Many refugees without land, the PLO in Lebanon. Today, few of the

473 students are likely to find employment at the end of their course, and some is true for most children leaving school.

The damage and looting of 300 during the Israeli invasion, the occupation of the centre by Druze Militia and the subsequent shelling by Israeli forces may draw attention away from the fundamental problems.

Yet staff are isolated from industrial and technical development in Lebanon and unable to obtain on-the-job training abroad, while the lack of modern equipment and courses is making the centre obsolete.

These reconstruction projects need to be tackled urgently. Yet the RWA faces a perennial problem: the raised only \$100m (about £70m) of the \$207m it requires and 55 per cent of this budget was due to be spent on education.

Yet, whatever funds are available, Palestinian education in Lebanon is a crossroads. Either the pattern of the past could be repeated, or a new strategy devised that will recognize the objectives of education in Lebanon and embrace the new social and political reality.

This will need to aim at building Lebanese and Palestinian communities closer together, offer wider opportunities for the whole community to every age group, and recognize that it may be many years before refugees can return to Palestine.

Alan Phillips is deputy director of the British Refugee Council.

LETTERS

Unity in the face of a political gag

Sir - I write with reference to your article "Antidotes to indoctrination" (TES, September 23).

At its annual conference (September 23-25), the Politics Association approved without dissent a resolution expressing concern at Ministerial intervention aimed at effectively excluding political education from the Youth Training Scheme. It is indeed rare for the association to make such a public stand and even rarer to find such a politically diverse group of teachers so united.

During the course of the weekend conference, concern was expressed over a number of recent developments which are likely to restrict the development of political education as a legitimate component of the curriculum.

Apart from the Ministerial intervention in the content of Youth Training Schemes, other areas of concern such as the intervention of Sir Keith in relation to the 16-plus criteria exercise cast a doubt in many minds of the support of Sir Keith for political education, a support which he has previously emphatically expressed to the association.

The Politics Association has for many years advocated the development of political literacy as the key to an effective political education. The allegation that this inappropriately involves "party politics" (as Mr Morrison so maintained in a BBC radio interview) is to misunderstand the

nature of the curriculum being advocated. If Mr Morrison believes that political education can be effective without dealing with political parties then many of us would be very interested to receive an elaboration of his ideas. Perhaps he also believes that history can be taught without dates or economics without unemployment.

The association, through its chairman, will be making representations to Sir Keith as a result of the concern expressed at the conference.

It is to be hoped that the Secretary of State, given his past support for political education, will endorse the views of the FEU and others that political education forms an important component of the social and life skills elements in YTS courses.

I conclude on a note of speculation.

Were the present moves by Ministers to limit political education to have been instigated by Labour Ministers, might we not have seen a rather vociferous response by the press and the Conservative Party to the effect that Ministers were engaged in a form of censorship to further their own political dispositions? I think somehow we would!

RHYS EVANS
National Executive Member
The Politics Association
West Oxfordshire Technical College
Halloway Road
Witney
Oxon

Too defensive

Sir - As a sociologist and Conservative supporter, I should like to comment on the proposed censorship of the "world outside employment" theme to be included in the off-the-job training under the Youth Training Scheme (TES, September 16).

The suggested exclusion in the Manpower Services Commission draft memorandum of what is called "matters related to the organization and functioning of society" shows an unnecessary defensiveness and is likely to give rise to the suspicion that there is a great deal to hide. A knowledge of the social context of employment is a necessary part of education. To prohibit the dissemination of this knowledge is to perpetuate the very situation which has given rise to the traditional sneer, albeit a genteel prejudice, that technicians are unable to see how knowledge is interrelated.

An objective examination of "matters related to the organization and functioning of society" may well result in the perception of faults and inequities. But this is not something

which should alarm confident and reforming Conservatives. Indeed, a Government which enthusiastically supports information technology and is making every effort to usher in a computerized society of unimaginable affluence could be regarded as revolutionary.

Such sensitivity to possible criticism is inappropriate. The spectre of innumerable traces being transformed into revolutionary socialists can only be described as ridiculous.

As the necessary steps can be taken to prevent political indoctrination, it follows that the exclusion of this educationally important area cannot be justified.

HUGO F READING
London N4

Letters for publication should be kept as brief as possible and typed on one side of the paper only. The Editor reserves the right to cut or amend them.



Solvents aid

Sir - I read with interest the article by Biddy Passmore (TES, September 23) assessing which line to take on glue sniffing, legal action or education and persuasion.

I have spent the past year at Newcastle University reading for a degree in counselling, working each Saturday at the Solvent Abuse Clinic run by Mr Denis O'Connor.

The team of counsellors involved provided a calm, empathetic and understanding response to the dozens of teenagers who attended - all on a

voluntary basis. Solvents were only the "presenting problem" and the counsellors encountered a multitude of personal crises.

Our success rate was high. Many of the youngsters came to terms with their problems and the sniffing stopped.

Sadly the clinic has had to close - not for lack of clients, but due to a lack of university support.

ALISON F ORTON
44 McCarthy Way
Finchampstead
Wokingham, Berkshire

Real intolerance

Sir - John Diamond's intemperate response (TES, September 16) to my article about contacts with Asian parents ("When East is West") confirms my belief that those most committed to the bogus notions of "multicultural education" - and who constantly claim to be motivated by a desire for harmony - are, in reality, the most intolerant group in the education service.

He talks darkly of "phrases which might well give cause for concern". To whom? Mr Diamond? CRE? NAME? Star Chamber? The Supreme Soviet? He implies the article is fabricated. It purports to be objective and based on actual experience. It was "actual experience".

He also states that my relationships with my pupils and parents are informed by prejudice; and he seeks to deny me the right to publish in the TES. "Honeyford's article is awarded a status by The TES. It does not deserve it. Worst of all, in Mr Diamond's book, I suffer from being both 'English' and 'Indigenous' - changes to which, alas, I must plead guilty."

Mr Diamond's rantings are typical of what passes for civilized dialogue in the debate about multicultural schools. Many decent and tolerant teachers are afraid of expressing their views precisely because Mr Diamond and his supporters have managed to create an intellectual climate which makes dissent from the multicultural party line virtually impossible. They fear the effect on their reputations and professional futures.

I believe, since this is a free society, it should be possible to report on the complexities and problems of life in a multicultural school, without being accused of prejudice.

I leave your readers to decide where the real intolerance lies.
RAY HONEYFORD
14 Milton Road,
Prestwich, Manchester

Science progress

Sir - We were interested to read the report of attempts to encourage girls to specialize in science and technology (TES, September 23). We were, however, concerned that the emphasis of the article was on initiatives which are expensive in time and money, for example, "Future Girls", or isolated and possibly contentious, such as Ellis Guildford School.

Since September, 1981, Tameside education authority has had two female secondary science teachers employed with the specific brief to "encourage interest and enthusiasm for the sciences among girls". We each teach half a weekly timetable of our subject and the rest of our time is available for developing the Girls and Science initiative. This Tameside initiative is now into its third year. Our approach during this time has been to foster cooperation between ourselves, science teachers, careers teachers and career officers in the L.E.A.

We have put the emphasis on what the classroom teachers can realistically achieve with a little backup support, given their lack of spare time and resources. It is at this level in a school that, we believe, the most sustainable changes can be made by the positive commitment of the teachers involved. It is they who are in a position to influence pupils on a daily basis, particularly over option choices and the interpretation of school policy.

Three schools in Tameside have operated single sex science teaching groups at various levels within the school and their experiences have convinced us that teachers should not be led to believe that this is the only approach. Such schemes are not without practical problems and can cause conflict between science staff and alienate other subject teachers.

Lastly we are concerned to hear of dramatic increases in the takeup of the physical sciences by girls, as we question whether this can be sustained and whether the full implications of this

Teaching the deaf

Sir - It would be a pity if some September 30) were to give the impression that there are no fully qualified hearing-impaired teachers in the hearing-impaired schools. In fact there are now more than 20 fully qualified teachers in the hearing-impaired schools, ranging from the deaf, partially-hearing, and peripatetic service; and further education. Most of us are recently qualified.

A few hearing-impaired teachers gained before the DES required teachers to be trained; but many qualified in the normal way, although considerable determination and ingenuity in navigating a course between the Scylla and Charybdis of the local regulations and teaching practice. Susanne Tufus suggests that hearing-impaired student teachers should be allowed to undertake TP while hearing-impaired children during their training. Although there is certainly scope for flexibility on the part of the departments, the idea that there is parity of esteem between different methods of qualification must be full thinking in the light of educational history. A "different" certificate of qualification - to the detriment of hearing-impaired children and hearing-impaired teachers.

Flexibility on the part of training departments and the DES is required, specifically to enable student teachers to demonstrate their ability to teach all kinds of children. Most placements require students to teach a class of thirty children - not all the same thing as teaching. One must while concession to hearing-impaired students would be to enable them to demonstrate their skills in small group teaching.

As a group, hearing-impaired teachers from England and Northern Ireland have recently drawn on their experience to produce advice to would-be hearing-impaired teachers. It should be pleased to forward a copy to the BDA's Education Officer, who has contributed to it.

PATRICIA NEVILLE
National Group of Hearing-impaired Teachers
281 Surbiton Hill Park
Surbiton, Surrey

Criticism unjust

Sir - We share the views expressed by the other teachers' unions regarding the readiness of schools to take account of the multi-ethnic guidelines issued by Bradford (TES, September 23).

By blaming the teaching profession for the activities of the Muslim Parents' Association, Councillor Barry Thorne unhappily confirms the impression that local politicians have little understanding of the huge efforts schools are making to come to terms with the challenges posed by our modern multi-cultural society.

If each of the multiplicity of ethnic and religious groups currently flooding the education system needs sympathy and understanding, so do the teachers who are struggling to provide for them.

It is worth pointing out that your own newspaper has published evidence that schools in Bradford are getting the balance right between Western and other cultures. We refer to the excellent letter from a Muslim pupil at Belle View Upper School expressing satisfaction with her programme (TES, June 10). Listening to those on the receiving end of education is to be encouraged.

SHELAGH PATRICK (Miss)
Chairman
Bradford Federation of the
Professional Association of Teachers
MIRIAM THAIN (Mrs)
Secretary
Bradford Federation

Teacher training

Sir - While accepting, indeed applauding, the sentiments expressed by R B Adams (TES, September 23), I feel obliged to point out one factual error in his letter. Mr Adams says: "Alone, among teachers, university teachers receive no compulsory teacher training."

Although the great majority of university teachers do, indeed, receive no such training, they are certainly not alone in that situation. On the contrary, outside the (primary and secondary) schools sector of education, no category of teacher is required to undergo such training.

Unlike Mr Adams, I am not astonished. In fact, I have always assumed by this that teacher-trainers were tacitly accepting what has always been my own view, namely that the value of such so-called "training" in this country, was highly suspect.

As a manager of F/H/E, responsible for appointing large numbers of teachers/lecturers in a score of separate labour markets, I should greatly regret the day when what passes for teacher-training in Britain today might become compulsory in F/H/E, thus preventing my being in a position to attract able teachers (in terms of academic prowess and strength of personality) from such professions as accountancy, the law, computer science, fashion design, hotel management.

When the trainers establish courses (like the accountants, for example) where most of the able trainees who attempt to qualify, and despite hard work, fail, I shall probably modify my views in this area. In 30 years in F/H/E I have failed to notice any positive correlation between holding a CertEd, BEd or PGCE and conspicuous success as a tutor.

B R GRACE
Principal
Barnfield College
Luton

Simple script

Sir - Although, as Rosemary Sassoon says (TES, September 23), the teaching of handwriting is the job of the primary or preparatory school, it now falls to secondary teachers to "clean up" the convoluted forms that some unfortunate children have had forced upon them - so often in the name of "being up" - writing - by copperplate penmanship. The shapes of the engraver's bird-wired stylebook have no relevance at all to the action of the pen, biro or fibre tip.

What makes for fluent legibility? Why I suggest, simple, unforced forms, written with confidence and bound together by easily achievable (ie "natural") ligatures; an awareness that clear handwriting occupies three spaces (height, x-height and regions of descent and ascenders). The key insight

OU not guilty of integrationist indoctrination

Sir - Phil Simpson's fears about over-hasty integration are well founded (TES, September 30).

All teachers in special schools must have seen children damaged by their experiences in "normal" schools and it is a major part of their task to enable pupils to rebuild their self-esteem. However, the two main components of a good special school's hidden curriculum work against each other.

The one that Mr Simpson identifies teaches pupils that somebody values them and cares about their problem; this facilitates learning, and could be part of any school's ethos. The message of the other component is that they have been rejected, are not quite normal and are apart from their peers; this may well do long term damage to their self-concept, and has no place in any school.

The former is generated within the school by numerous organizational and interpersonal cues put there by experienced and knowledgeable staff. The latter arises from the existence of the segregated school system and is beyond the easy reach of teachers.

Teachers can, however, improve their own ability to meet their pupils' needs and reduce the numbers who are failing. Of course E241 students are not alone in attempting this but that 600 a year are doing so in this way is reason for a small cheer.

Integration is about changing normal schools so that they can meet the needs of an ever-widening diversity of pupils. It is not about "knocking down the special education sector" (as Mr Simpson and I, with less distinction) have laboured.

Attitude change as a result of new learning and insight is part of the educational process. To dismiss a course as indoctrination because it contains uncomfortable notions is simply to expose one's prejudice.

As with other academic offerings of the Open University, this course presents along with the received wisdom, other viewpoints; in this instance the

Real challenge

Sir - As one of the 600 students currently being "indoctrinated" by Open University course E241, I would like to counter the "dangerous theory" accusation made by Phil Simpson.

As a teacher in the remedial department of a large comprehensive school for the last nine years, I have found the course a fascinating and thought-provoking challenge. It has made me question and re-examine many established ideas and practices, my own and others.

As the mother of a young child with cerebral palsy it has also helped me to understand and come to terms with many of the problems and anxieties faced by parents of disabled children.

To suggest that E241 students can be so easily indoctrinated is to deny that many of them, like myself, are actively involved in teaching children with special needs, and understand both the children's needs and present limitations.

RODERICK THOMSON
14 Dove Street
Shipley
West Yorkshire

Backward step

Sir - As one who taught for nearly 20 years in boys' grammar schools, four of them as headmaster of a highly selective one, followed by 14 years as head of a comprehensive school, I can only express despair at Sir Keith's intention to re-introduce grammar schools.

The 11-plus examination selected the top quarter of the intelligence spectrum for an academic form of education in grammar schools but from my experience, this method was successful with approximately only two-thirds of them, and for two main reasons.

Firstly, not all highly intelligent people are academically inclined; a proportion of them are more interested, for example, in the practical applications of scientific knowledge rather than in pure science.

Secondly, the rigid streaming practised in grammar schools resulted in a psychological factor whereby those in the C or D stream, although not necessarily much less intelligent than the others, considerably under-achieved and became demoralized. It is interesting to speculate as to whether we might ever have had comprehensive schools had there been "mixed ability" teaching in grammar schools.

Comprehensive schools have their faults, but educating children of all abilities within one school is not a priori one of them.

RUSS SHARROCK
Headmaster
King Edward VII School
Sheffield

Banded apart

Sir - The former headmistress of Kidbrooke School, Isobel Shepherdson, makes some interesting points in her defence of comprehensive schooling. She dislikes selection in any form and yet, have comprehensives abolished selection? Children are selected for entry to such schools by administrators - although there is much dispute (at least in County Durham) on how they should be selected. Is it by neighbourhood? Or attendance at feeder primary schools? Or what?

In comprehensives, most children are banded, set or streamed by at least the age of 13, and in some schools rather earlier. And there is evidence that teachers distinguish between the able, the average, and the less able within mixed ability classes.

BEVERLEY SHAW
School of Education
University of Durham

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Integration is about changing normal schools to meet the needs of an ever-widening diversity of pupils.

Integration is about changing normal schools to meet the needs of an ever-widening diversity of pupils. Mr Simpson cannot have studied the 16 units in E241 well, otherwise he would know that overtight, wholesale change is neither advocated nor seen as possible by the tutors of the course. The importance of the re-education of attitudes, careful preparation and rationalization of resources is emphasized.

It is also clear that the tutors recognize the limitations that individuals and circumstances in specific areas will have on schemes for integration. A continuum of provision is a major theme of the course.

As Unit 16 says - "An integrated system will be no less variable and 'messy' than a segregated one". We are asked to decide which "messy, ordinary human system" we would prefer.

JOYCE DALE
41 Cefn Esgar
Llanbadarn
Aberystwyth
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Manual help

Sir - With reference to Rosemary Sassoon's article "Writing 'Wrong'" (TES, September 23); when given the ultimate responsibility - the reception class - 10 years ago, I was indebted to the teachers' manual of *Breakthrough to Literacy* for providing sensible guidelines for teaching handwriting as a skill.

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Recipe for
anarchy

GEOFF CORRIN

Sensationalism is the art of the unexpected and has little to do with the facts. Take for instance the statement "traditional teaching is an almost completely futile, wasteful, over-rated function." (TES, September 30). "Learning to be free". Had that read "teaching is an almost completely futile, wasteful function..." there might have been a covert cry of approval throughout the teaching profession; but where the object is to make the hackles of the embattled rise and simultaneously set the partisan to preening their feathers, polarization is the order of the day, however damaging to education.

I have long been an admirer of the teaching of Carl Rogers in the field of psychotherapy and counselling, and I see no difficulty in transplanting his three basic principles from that area to teaching: a teacher is a better teacher if he is intellectually and emotionally mature; if he can initially accept his pupils as they are, warts and all; and if he is capable of a sympathetic appreciation of their perspective on life. But, when I read that "education is becoming more and more authoritarian", warning lights flash to tell me that I am in the presence of educational theory apparently based on almost total ignorance of the realities of the teaching situation.

Authoritarianism is implicit in the relationship between teacher and pupil *per se*. Without it, that relationship could not exist. The teacher, as teacher, is authoritarian. Even where the teacher sees himself merely as a facilitator. It is not the pupil who decides upon this role for his mentor; it is the mentor himself, from his base line of authoritarianism.

It might be sensible to expect that, as far as possible, pupils' learning should be experiential. Sensible, yes, but not necessarily progressive. At one another's throats. To comply with the first law of journalism we need to push the person centred approach to a sensational extreme: pupils should "decide what and how they should learn". That should get the educationists going.

But what exactly is meant by the simplistic statement that pupils should decide what they learn? In explanation, Rogers supplies the analogy of the toddler touching the warm radiator. Even at the crudity of that level, the teacher will still be constrained to exercise his authority by deciding what sort of radiators are available for the child to touch - which is not the same thing as merely facilitating the child's choice. The teacher will also have to maintain a very strong belief in the child's innate sense of curiosity leading it to touch the radiators. Children in fact avoid many of the potential dangers of the world by sensibly accepting the advice of experienced adults, and inventors of things like the jet engine

did not have to waste time discovering fire and the wheel for themselves. In the circumstances, it could be argued that the child squashed flat by the wheel of a double decker bus is the victim rather than the beneficiary of self-directed learning, and that there are more efficient ways of doing things.

Mr Rogers, however, offers us another analogy to explain his theory of experiential learning: "laboriously acquired" reading skills, we are told, suddenly reveal the magical power of words. But how were these reading skills so laboriously acquired? In the absence of explanation, are we to assume that it is through the child's deciding how and what it should learn? If so, then theory runs counter to experience, which seems to indicate that given the freedom of choice recommended, the child seeks the satisfaction of self-indulgent activities, which far from leading to development merely fixate the child at his existing level.

Furthermore, when the teacher submits to the wishes of the child, the origins of the child's desires do not necessarily lie in his innate curiosity, but may have been programmed into his brain by the external influences of the culture beyond the precinct of the classroom. Some of those influences, stemming as they do from commercial interests, are prepared to exploit the instinctive desires of immature minds, irrespective of whether it inhibits the development of that responsible egoism which is the basis of civilized society. Unfortunately, we do not educate our children in a vacuum. The "increasing alienation" which Carl Rogers sees among people is, in fact, that very conflict between the selfish, short-term desires and the demands of civilized society which his extreme theories would encourage.

Absolute self-indulgence is a recipe for anarchy; civilization requires recognition of the rights of others and the exercise of self-restraint. The positive achievements of human organization depend far more on that respect by the young for wisdom acquired vicariously through the experiential learning of others than Carl Rogers seems to be aware of. In his, the joys of sensationalism are prepared to concede. Does he really believe "no knowledge is secure" in so absolute a sense that the imparting of any knowledge is futile and wasteful? Is it not empirically obvious that even if all knowledge was absolutely insecure, it is often static enough to make it well worth our while to learn a considerable number of facts, from the names of continents to the words which embody the poetry of *Hamlet*? If we leave the choice of these facts to the child (who is ignorant of the very existence of most of them) the state of human knowledge and understanding will rapidly be reduced to the level of that possessed by primitive tribes.

We are told that, "What Mr Rogers proposes is nothing short of a total revolution in education." Can education survive many more such revolutions?

Geoff Corrin is a former deputy head, Slayford School, Newcastle upon Tyne.

The real
St Kev's?

KEN MASTERS

One whole year elapsed between the inspection of my school by Her Majesty's Inspectors and the publication of their report. My colleagues and I had a very much during this long wait. I was a patient who, having been told that I was to have a medical, is left waiting for a month, nursing a suspicion that the ailment was terminal. The report arrived at last - and although we were credited with a few malfunctions, and there it would seem that we did survive in a robust state of health for some time to come.

There was a temptation immediately after the inspection and during the period between inspection and report to rush into print; to express our views on general inspections and above all on the good (or otherwise) of such reports being made available to the public. Wiser counsel prevailed, however, and we held our peace. We would appear that the consensus of opinion among my Common Room that public reporting is a good thing. We are certainly a better school for having had the benefit of an external objective and informed opinion on our state of health. We possess as it were a programme of endeavour for the future. Where we have agreed with the recommendations we have made changes; where we have disagreed with them we have been convinced of our own diagnosis of the local situation.

The report has highlighted for us some problems of which we were not aware. The inability of local authorities to provide an adequate standard of maintenance of campus buildings; the indecisiveness, in a case, of the Church Education Council to grapple with the problem posed by falling rolls. We welcome the emphasis on these issues which affect every day of our working life.

Our reservations were directed first, the suspicion that the public inspection is too brief to really feel the pulse and character of a school. What that HMI were like, I do not know. I inspected all the trees, labelled them, pronounced some in need of attention and others to be healthy. The presence of the trees however prevented them from seeing the wood. This is an understandable limitation. As one of our campaigners pitifully expressed it: "I came and saw St. Kevin's they missed St. Kevin's!"

Second, the Common Room was uneasy at the difference in tone between praise and criticism. When individual departments had received glowing verbal reports from inspectors the written report tended to the bland. Criticism however was both forthright and written responses were both forthright. "The appearance of the school is not enhanced by the considerable amount of litter which is allowed to be in all areas from day to day."

Finally the media-treatment of the report was predictable. It varied from a good national press ("Oxford catches despite adverse effects of vandalism" to ill-informed local radio who in probability not having read the report could find nothing to praise. Even so, an esteemed journal as *The Times Educational Supplement* was caught out!

The TES (September 30) contained a fair synopsis of the report with a photograph which was used by the Sixth form as an appropriate illustration for their BBC A level, general, studies programme on the impact of photography in journalism. The TES photographer, failing to make himself known to anyone, shot a boy in a disused kitchen on the steps of the campus.

All in all however we have welcomed our inspection report. It is a better school because of it. We have a whole new chapter of history to add to our not inconsiderable store. I can confirm that the headmaster was not seen sipping from the toilets at mid-day, sipping from the toilets of toilet-paper. The amusing incidents which occurred during the visit of HMI are remembered suitably - and published. HMI inspections are good things.

Ken Masters is headmaster of St. Kevin's, Colchester.

SURE AND
STEDFAST

At a thanksgiving service to be held in St Paul's later this month the Boys' Brigade celebrates 100 years of being 'first for boys'. Eric Midwinter finds the BB has never erred from the pursuit of 'true Christian manliness'

There was a special scout patrol call, I was told, so that members could communicate with each other without alerting passers-by. The hope was that they would remark: "Ah, that's one of the many perverts native to these environs," and suspect nothing.

I was about to ask what happened if one's confrères also failed to distinguish between a short-trousered Percy Edwards with green braid in his stockings, and the real thing, when I was enlisted in the tiger patrol, with its alarming call of "g-r-r-r". The vision of passers-by commenting, "Ah, that's one of the many tigers common to South Manchester" was difficult to conjure up, and I soon abandoned scouting with never a regret.

Indeed, even the mildest gift for prescience might have informed me that, 40 years on, I would be reviewing the centenary of the Boys' Brigade, and feeling instinctively more sympathetic towards it.

The BB has had the goodness to avoid the hagiographical. They have commendably commissioned a weighty and responsible book on the subject, which tries hard to place the Brigade in the context of the development of the youth movement. Its title is the biblically-spelt *Brigade motto, Sure and Stedfast: A History of the Boys' Brigade 1883 to 1983* (J Springhall, B Fraser and M Hoare; Collins, £10). Collins have also published D M McFarlane's *First for Boys, The Story of the Boys' Brigade, 1883-1983*, a slighter and more benign product.

Not content with a perusal of these works, your intrepid correspondent improved the shining hour with a pleasing afternoon at the Parson's Green headquarters. Of the BB with its current Secretary, the courteous and extremely fair-minded Alfred Hudson.

The Boys' Brigade does not mess about. It is as convinced in its object as it ever was and refuses to compromise with its original commitment to "the advancement of Christ's kingdom among boys" and "all that tends towards a true Christian manliness". There are no namby-pamby notions about its activities being a good in themselves: they are but an attractive avenue toward church membership. All the Brigade's 3,000 companies are an integral facet of 3,000 churches - roughly one-third Presbyterian, a quarter Methodist, a quarter Baptist and other nonconformist and



Sir William Alexander Smith

one-eighth Anglican - and "spiritual leadership" is much spoken of.

It is accepted that most of the 145,000 lads involved, from 6 to 18, in the various sections, are there because they enjoy kicking footballs, blowing bugles, or attending camps. Only a few may end up as serious church members, but, nonetheless, the belief is strenuously held that one must "till the soil" in the hope that the Holy Spirit will prevail. As one who gardens on exactly the same principle, I wish I could remain as ebulliently optimistic.

There is nothing unusual about Christian evangelists seeking to build particular roads from Rome or Babylon. All Christian sects have striven to make their message beautiful, fearful or stimulating enough to attract converts. In 1883 William Alexander Smith decided that discipline and good fellowship might do the trick for Glaswegian adolescents, and, in a mission hall among the not unprosperous artisans of north-west Glasgow, he started the world's first-ever voluntary, uniformed, church-centred boys' organization.

If one may turn for a moment to an inappropriate world of horse-breeding, Boys' Brigade is out of ineffective Sunday School by Interesting Territorial. Smith, a non-conformist businessman, noted that, as an officer in the 1st Lanark Rifle Volunteers, he could control and divert part-time soldiery; but as a teacher in the North Woodside Road Sabbath School, he faced the Victorian equivalent of the blackboard jungle. Briskly, he determined to offer older boys the structure and pride of the one imbued with the moral values of the other.

It is far from coincidental that his fifth successor as boss of the BB, Alfred Hudson, combines both elements with a Cromwellian exactitude, for he compounded a distinguished career in the RAF Regiment with a licensed readership of the Church of England. Parade ground and pulpit: the distinctive salt and vinegar flavour of Smith's crisp philosophy.

Like its adult predecessor, the Salvation Army, the Boys' Brigade leans heavily on vivid military metaphor, and yet, like the Sally Army, it has a creditable anti-militarist record, despite the strictures often heaped upon it. Despite tempting bribes from the War Office, and apart from the intensely jingoistic 1917-1924 phase, the BB normally refused point-blank to swap its ploughshares for the swords of the Army Cadets.

It generally preferred not to risk its specific Christian stance toward the lower middle and aspiring working-class boy to whom it mainly appealed, and whose "trouble" was, according to a 1923 booklet, "that he has not learnt at school to play up and play the game".

Such sub-Arnoldian ethics remind one that being 100-years-old can be a nuisance. The BB survives and mostly prospers, but tradition, especially of that vauntingly buoyant Victorian brand, can be an incubus. External trappings get in the way of internal motivation, and some must wonder whether a few of the initial methods might not be a little dated.

The BB leadership, much more heavily democratic than one would expect of a purportedly military machine, wenders likewise. I met young Janice Smith, trained in the law and one of the Brigade's one-in-four female officers. A latterday cross of Major Barbara and Sylvia (not Christabel) Pankhurst, she fluently espouses the cause of power to the young people. She is chairperson of the English committee for 1983's International Youth



BB fire auxiliaries: 1940

Year (No. I didn't know it was either) and she thinks youngsters must involve themselves strongly in all the decision-making processes that affect them.

Not yet world-weary, they are, she explains, more productive on committees than elders of 25 and over who have forgotten how to keep it simple. Perhaps the Home Secretary should check the forcible-feeding equipment at Holloway and warn Oxford Street stores to board their windows: we may not have seen the end of the suffrage movement.

However, the question to be asked is not the usual: is it relevant to the needs of youth today? The issue is rather: is it relevant to the needs of youth today. If you are anxious to draw them into the Christian fold? To that degree, and disregarding liberal fears about indoctrination, the BB is constant in its approach; because, presumably, the Church message does not alter because boys starting work in William Smith's day would now barely be starting secondary school.

Although the programme and style of activities will be revised and the problems of early leavers, the new estates or rural isolation worried about, it is unlikely that some features, like drill or distinctive dress, will ever be abandoned in favour of the let-it-hang-out, sloppy chaos beloved of, I was wryly told, your painfully trendy cleric.

That does mean some contradictions, as Mr Hudson and friends will freely confess. For

instance, many boys wear their simple uniform with affection when joined together in holy fraternity, but are reluctant to wear it on the street, not least because they attract the brickbats, physical as well as vocal, of their jeering peers. Thus the "plastic bag society", as Alfred Hudson engagingly calls it, scuttles to the company meet carrying its light luggage ready for a quick change at the church hall, not unlike mysterious black grips.

The capital "B" was put into "Boy" by the founder, who practically did for the boyishness of boyhood what Lewis Carroll and others had done for childhood. Others joined the fray and several societies have since dwindled and vanished. In by far the most fascinating passage of its history, the BB and the Scouts crossed wires. BB gave BP his big break; for Baden-Powell experimented with and wrote about scouting within the framework of the Brigade. Then, just as Liverpool football club originated in a breakaway faction from Everton, the Scouts went it alone.

William Smith's view was logical enough. Scouting was welcome as an additional dimension to BB activity, but it could never be coherent enough to form a whole. To the rueful chagrin of the BB Baden-Powell was a scene-stealer. As his all-singing, all-dancing performance at the Making Empire demonstrated, he was one of those late Victorian martial artists with a theatrical flair for upstaging more workaday actors. This, coupled with his outrageously dotty and pseudo-sylvan schemes for lads, made for success.

Smith, commonsensical, pioneering, but diffident as a publicist, was as Asquith to the other's Lloyd-George. Their correspondence when BP, dangling the regal carrot of the Prince of Wales, invited his one-time mentor to amalgamate with him, has the same refrigerated civility as the exchange of letters between Margaret Thatcher and Francis Pym on the occasion of what worthy's departure from the Foreign Office.

It must remain, for the rank outsider, a matter of speculation whether the gimcrack hollowness of Scouting will endure longer than the more earnest, sturdier, if, by definition, more exclusive code of the Boys' Brigade.

Don Bradman, when he had completed a century, used deliberately to take guard again and settle down for a second inn. The Scouts have twenty-odd years to go before they knock up a hundred. It would be interesting to know how the taciturn Bradman assessed such differences. Did he prefer an opening bat like Arthur Morris, first in and capable of a long, reliable innings, or a spectacular star like Keith Miller, coming in later on, occasionally effervescent, but rather inclined to get himself

REVIEW

EVERYONE'S OTHER COUNTRY

by
Naomi Lewis

The Oxford Book of Dreams. Chosen by Stephen Brook.
Oxford £8.95.

Waking from perhaps the twentieth dream of any night, what need (I tell myself) have I of Kafka, of fiction, drama, movies, the places and the plots? But in a moment all the scenes are gone, the absurd bizarre and dreadful, the poignant, haunting and exquisite; only a taste remains. Still, many less indolent dreamers have caught and held these happenings, in diaries, letters, autobiographies; literature itself is a mine of dream experience. Both kinds provide the sources of *The Oxford Book of Dreams*. Everyone's other country? What a land it is—the one place free to all sentient beings, animals too, where the dead live, the lame walk, and problems may be solved. But mischief makes the laws. You have no choice of gateway, road or company, of uttermost shame or uttermost ecstasy, nor can you find the same path twice, or leave by the way you came. But so boundless are its chances that the wonder is that a collection of this kind has been so rarely made before.

unread *Alon Locke* is such a one. There is also a passage from that hauntingly dream-based novel, du Maurier's long-forgotten *Peter Ibbetson*. Contemporaries have a place: M Coetzee, Nabokov, Julian Green, Doris Lessing. If nothing is here from the Scottish ballads, from Bierce ("An Occurrence at Owl Creek"), from Andersen ("The Snow Queen" is surely a misfit) from the poems of Edwin Muir, and from a handful of other superb dream-writers—well, all true anthology readers must be allowed their private lists.

Its literary emphasis, though, gives the book a more lasting quality than if it had centred on "dreams cited for purposes of clinical and theoretical interpretation in the psycho-analytical textbooks". These are not used at all. And after all, the biographical items here do carry their own content. Kate Greenaway has a terrible recurring dream of her much-loved father. Gazing into his face she sees that it is not his. Desperately she tears off the false face, "only to be confronted by another and yet another, but never his own." Ruskin records what he calls "a most unusual form of unpleasant nightmare". What was this? "I had engaged myself (and with pleasure to the husband and child, and to all who were present) to write a book on the subject of the night, and to do so on the same day, and could neither decide which to keep, nor how to disengage the other two". Cowper dreams of meeting Milton; he fulsomely praises the Master. Well, you for your part will do well also, says M with a charming smile. Dickens states that he never dreams of any of his characters. Hazlitt bleakly explores the fact that while his days and years were obsessed by the face of a girl (see his *Liber Amoris*), she never entered his dreams. But Christina Rossetti, sadly inhibited in life, had better luck in the other country.

In happy dreams your smile makes day of night.



'Calm Sea', by Arnold Böcklin

Thus only in a dream we are at one. Extraordinary! Clough's night-muse brilliantly sums the light and dark of mid-Victorian doubt. I dreamt a dream; till morning light, A bell rang in my head all night, Tinkling and tinkling first, and then Tolling; and tinkling; tolling again. So brisk and gay, and then so slow! O joy, and terror! mirth and woe! Ting, ting, there is no God; ting, ting — There is no God; dong, dong!

A C Benson, who never dreamt out of character or out of class, provides this gem: Lunching with King and Queen (George V and Mary) I gave imitations of the Royal Family which were well received. The King's eyes very bloodshot, voice very loud. I walked with him, along a street. "There's the police station! Ha, ha! We all know what that means. . . I am told that I have a remarkable facial resemblance to the late Dr. Pugh!" A footman arrives. "I am sorry, but your Majesty's car is waiting in the carriage." K to footman. "I prefer to walk!" To me—that's the way to treat women!—pause—"You are a bachelor, Benson?" "Yes, sir." "Remain one, Ha, ha!" "You are a writer, Benson?" "Yes, sir." "These remarks of mine would make good copy!" This all written down on waking. We read how Blake's original method of printing poems and pictures came to him in a dream. So too did the ring structure of *Benvenuto Cellini* reveal itself to the German chemist Kekulé. Sir Thomas Browne comments on a curious matter of rights: "Dionysus was absurdly tyrannical to kill a man for dreaming that he had killed him . . .

Lamia was ridiculously unjust to sue a young man for a reward, who had confessed that pleasure from her in a dream, which she had denied until his awaking senses. . . Still, the point remains open to debate. Interpretation (which has ruined many a good dream-narrative in our time) is also not the business of this book, though it does include, perhaps whimsically, a number of dream-entries from Artemidorus (c. 150 AD) and Astruc (c. 1650). Sample: "To wear a purple robe in a dream threatens a long disease. . . Better than most is 'To see a colt running denotes something mysterious'. Freud's novelty, you could say, was to invert time, and dig his sibylline statements from the dreamer's past. No, best to read this volume as an imaginative experience, knowing some of the pleasures of poetry, fiction, and human portraiture. Uneasy dreamers may also cheer themselves by the following forthright dicta. "My conclusion," Cicero states, "is that obscure messages by means of dreams are utterly inconsistent with the dignity of the gods." Two thousand years later (1973) one Sarah Ferguson observes: "I dislike the cult of dreams. . . Nor do I like hearing psychological discussions between those who do not really know what they are talking about. There is something soft and messy about such people."

And finally, Carlyle. "Dream! My dreams are always disagreeable—more confusions—looking my clothes and the like, nothing beautiful. . . I am a worse man in my dreams than when awake: I am cowardly, dream of being tried for a crime." And then he splendidly adds: "I long ago came to the conclusion that my dreams are of no importance to me whatever."

had the splendid idea of suggesting appropriate scriptural readings for different states of mind. Nash addresses every state of mind and is surprisingly comforting. As his addressees will know, he writes in two main metrical forms, the brisk ballad and the long, involved line which must have started as a parody of Whitman:

Yes, Shelley and Keats
And other elites
They missed the patter of little feet,
For he who sits and listens to patter,
Will never accomplish more than a snail's pace
or
There is only one way to achieve happiness
this terrestrial ball,
And that is to have a clear conscience, or none at all.

He is not only flimsily funny; he's beautiful well read, and rhymes "I feel that I have built myself a monument of bricks and mortar" with "Cole Porter". Towards the end of the book there is a wholly serious poem about being in hospital called "Notes for the Chart in Bed". It reads: "The eerie imposters are all gone, all gone, all gone—Dodger Thomas. I know he is lurking somewhere in a shadow. Dodger Thomas. I've never met him, but old friends have. I know his habit: He enters without knocking."

A revised edition of *The Penguin Book of American Verse* is now available. Geoffrey Moore explains how it differs from his 1977 selection, and his introduction to that, which is reprinted, is a helpful essay on the characteristics of American poetry. Three very new writers are included, one of whom, a woman, seems to have the same obsession with female genitalia and phallos as Ted Hughes.

Learnt by heart

Bernadette Folliot on the long and short of it

Made nests inside men's Sunday hats,
And even spoiled the women's chats
By drowsing their speaking
With shrieking and squeaking
In fifty different sharps and flats.

Such favourites choose themselves. But there are 59 items from Chaucer to Auden, and there do not seem to be that number of good stories or of good narrative poems. One ballad can sound terribly like another, whether it is an anonymous original or a later imitation. Drayton's "Ballad of the Wild for France" is a marvellous ballad line to a disappointing patriotic anthem waiting for a tune.

Clarence in steel so bright
Though but a maiden knight
Yet in that furious fight
Searched such anophel!

What does seem to appeal, especially to younger readers, is bloodthirstiness. "Robin Hood", "Bath Gelert", "Sobrab and Rustin", "The Highwayman", "Lepanto", drip with gore, even though the excuse be pity and terror. Softer emotions are also described at length, notably by Keats, in "The Eve of St. Agnes", a Romeo and Juliet with a happy ending. This poem inspired the dreadful all-purpose Holman Hunt on the dust jacket, which at first glance looks like Macbeth and his lady after Duncan's murder, but the puff on the right is a white, not a black, unicorn, and what he is doing is not

appearance with a characteristic episode from *Paradise Lost* in which Sin unlocks the gates of Hell and is unable to shut them;
On a sudden open fly
With impetuous recoil and jarring sound
The infernal doors, and on their hinges grate
Harsh thunder, that the lowest bottom shook
Of Erebos.

If parts of epic are to be allowed, then Byron would have benefited from this treatment: a chunk of *Childe Harold*—"There was a sound of revelry by night" perhaps—instead of Beppo. Still, this is a generous collection of verses, representative of many ages, writers and styles. "The Lion and Albert", written for Stanley Holloway, is the oddest choice, especially since it was composed some time after Bello's "Jim" (the notes do not mention this). "The Ballad of Reading Gaol" is one of the most welcome and indeed timely. There is also one glaring omission. If Chaucer, Goldsmith, Tennyson, Longfellow and Matthew Arnold had been allowed only one poem each (Browning has three) there would have been room for *Venus and Adonis* or *The Rape of Lucrece*.

"God Bless the Gideons". Ogden Nash's crumbly savage attack on twentieth century popular literature, prompts the thought that a copy of "I Wouldn't Have Missed It" in every hotel bedroom might reach a lot of people who wouldn't look at a Gideons Bible. The Gideons

The room's the limit

Extemporary Dance Theatre. Theatre Royal, Bury St Edmunds.
Cecilia Macfarlane. All Saints Middle School, Sudbury.

Wherever Extemporary Dance Theatre goes, Cecilia Macfarlane, the company's teacher in education, will be nearby, taking workshops in schools and running short courses for teachers (of all disciplines, not only drama and physical education). While her work is related to the philosophy and repertoire of the company, and "aims to make the show that bit easier to understand", the workshops function perfectly well as one-offs.

At Sudbury she started by loosening up the bodies of her mixed group of 9 to 10-year-olds, inviting them to devise their own exercises. Gradually the movement became more inventive and wilder—"the only limit is the room"; the children began to use each other for balance; everyday activities, at first precisely mimed, grew into surreal extravaganzas—actions simplified and exaggerated into art.

Using some of the music and choreographic ideas from one of the Extemporary's pieces—on this occasion, *Spiked Sonata*—exploring their newly acquired physical vocabulary and injecting their own ideas, the children were soon able to devise and perform short dances for each other. The thirly cocktail-party setting provoked much primping from the girls and boozing (often to oblivion) from the boys. Seeing *Spiked Sonata* itself—as if from the inside—would complement and complete the experience.

Extemporary brought a wide range of chamber pieces to the Theatre Royal, including the severely beautiful *ma pas de deux*, *1 2 X U*, *Fergus* (a joyous and wickedly ragging *Bourgeois*, *Naples*, and *Dark is the Night*), *Gold was the Ground*, a pleasingly formal and succinct history of blues-jazz from Blind Willie Johnson to Laurie Anderson, from economic depression to me-generation angst.

Jill Burrows

In November Extemporary visits the *Stahl Theatre, Oundle*, (8-9), and *Walton Comprehensive School, Peterborough*, (10-12). Cecilia Macfarlane can be contacted at the company's office, 01-240 2430.

Other RSC

The Royal Shakespeare Company are following up the success of last year's youth festival with a similar event which will be at the Old Swan until the end of next week. David Rudkin's new play *Space Invaders*, workshops for young playwrights, talks, practical work on the season's repertoire and a rock concert on the stage of the Royal Shakespeare Theatre given by Echo and the Bunnymen are among the festival's ingredients. As before, many of the RSC's designers, directors and actors will be taking part.

Further information from Nicola Russell, Stratford 296655.
The annual Rank Xerox/Royal Court Theatre Young Writers' Festival will take place in March 1984. The closing date for entries is November 19. More information (and a selection of plays by 12 to 15-year-olds, *Primary Sauce*, £1.70, which can be a guide for young writers) from: YPTS, Royal Court Theatre, Sloane Square, London SW1W 8AS. Selected plays will receive professional production. Young radio playwrights are invited to send scripts to: Watershed, Arts Trust, 1, Canals Road, Bristol BS1 5TX for the W.H. Smith Schools Radio Playwriting Project by March 1. Professional help and introductory tape available.

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G G Klueck: Photomontage postcard 1928

Moscow in Piccadilly

Art of The Avant-Garde in Russia. Selections from the George Costakis Collection.
The Royal Academy until November 13.

In 1947 when George Costakis began unearthing Russian avant-garde art, it was suppressed in the Soviet Union and largely forgotten in the West. By the time he left Moscow in 1977, bringing with him hundreds of works created between 1910 and 1930, research had proliferated, several important exhibitions had taken place and our appreciation of this amazing period had greatly increased. For most people, Camilla Gray's 1962 book had provided the initial revelation. Today, we have monographs in English on Lisitzky, Rodchenko, Malevich and Tatlin.

All these better known artists are represented in this exhibition but it is the quantity and quality of pieces by less familiar ones that makes it so important. The women alone are impressive. During the First World War, Olga Rozanova had achieved with the same economical means the buoyant purity that would characterize many of Matisse's much later papier-coups and by 1917 had anticipated by 30 years (and without any of his pretentiousness), Barnett Newman's in the vibrating, vertical band of colour.

Michael Clarke

Cambridge drama

Cambridge Theatre Company have arranged an educational programme of talks, weekend workshops and schools playdays to complement their autumn tour of Orton's *What's the Butler Saw*, and David Pownall's new dramatization of *Pride and Prejudice*. A pre-performance talk by John Lehr (Orton's biographer), can be heard at Cambridge Arts Theatre on October 25 and a special weekend course on Orton will be held at Burwell House Adult Education Centre, Cambridge, from October 21-23.

After the show discussions on *Pride and Prejudice* follow performances at Marwick Arts Centre on November 3.

and at Cambridge Arts Theatre on November 17, while whole-day sessions designed for senior students studying Jane Austen, and including "scenes in action" workshops, take place at Cambridge Arts Theatre on November 16 and the Theatre Royal Bath on November 30. A special weekend seminar at Cambridge on "The Novel as Play", featuring David Edgar, Fay Weldon, Mike Alfreds and David Pownall, will take place on November 12-13. For further details of these and related events, contact CTC's Education Liaison Officer on 0223 357134.

Paranoia

A Passion in Six Days.
Crucible Theatre, Sheffield. Until October 29.

Paranoia is a word Harry Gaurkroger, MP, has only recently learnt. His own becomes apparent when he rails at a fringe meeting of the Militant Tendency, telling them they haven't a chance in hell, and being mocked in turn for his tales about his working-class origins. "Forgive them their ill-usions", chants the chorus, commenting on the conference as a whole, for Howard Barker's new play is set in Brighton and is a satire on the Labour Party.

Gaurkroger is in fact the chief protagonist, an old-style Labourite who looks back nostalgically to the Wilson era—"It was paradise and we never knew it". "It was lies, retorts his landlady, and Gaurkroger agrees, finding nothing wrong with that. Everyone is open to dialectical correction in this play, whether from their wives, Militant Tendency or the incorrigible political commentator, Sir Roger Claxton. The action is minimal. Gaurkroger catches cramp while swimming in the sea. His life is saved by Gint (Kinnock) who, Gaurkroger decides, must also become the saviour of the Labour Party. His speech is intended to nudge Gint into history, but in the event Gaurkroger is prevented from making it by a stray dog. Nevertheless, as Gint predicts, he is to rise as Raymond

Toynbee (Foot) falls. Once this is established, the play devolves into series of episodic vignettes describing strained personal and political relationships. Gint spurs with Nigel Proud (Peter Shore), ably played by Toby Salaman, is provoked by Annie Axt, a delegate convinced that sexual relations should be based on mutual need not demand. Her troubled marital relationship provides a terse exchange which points up a parallel between sexual possession and political power. Here and elsewhere the humour turns cynical. At the climax Gaurkroger, acting out of character, breaks down and declares that he's forgotten what socialism is, giving vent to an unanchored bitterness and frustration. Timed to open as the real Labour Party Conference closed, the play has been overtaken by events. It contains some acute character studies and witty use of mannerisms (Foot's digressions, Kinnock's trouser adjustments). Technically innovative, it deploys attention from the speaker's platform and its audience to television screens via the ever present media. The band, relying solely on voice and percussion, provides motifs that, with their unusual harmonies and mocking lyrics, counter the politicians' clichés. But the satire, which regards Foot with more affection than Kinnock, needs at the Party's paranoiac without explaining it, and unfortunately deals with issues that are yesterday's news.

Frances Spalding

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A case for heroic surgery?

Brian Morton on G F Newman's view of the health service

The Nation's Health. By G F Newman and Les Blair. Thames Television/Euston Films. Channel 4, Thursdays through October, 9.30pm. Follow the Nation's Health. Introduced by Joan Shepton. Channel 4, succeeding Fridays at 10.30pm. **The Nation's Health.** By G F Newman. Granada £8.95. 0 246 11412 6. £1.95.

The real danger of myths is not that they may crumble and plunge us into some unwelcome or uncomfortable "reality" but that they will merely turn into their own opposite, negative myths, inversions which are no less simplistic or partial.

Medicine, long linked to magic, inspires particularly potent fantasies. Mills & Boon present the profession in a wholly idealized way: icy but passionate, detached but caring, endlessly competent and endlessly attractive. Television is (outwardly, at least) a tougher medium; fictional medicine on television - *Emergency Ward 10*, *Angels*, *House Calls*, *M*A*S*H*, *Dr Kildare*, *Dr Finlay's Casebook*, *Trapper John*, *St Elsewhere* - looks for the frailties and personal dramas behind the image; television goes for either humour or sentiment and thus usually appears far more deeply compromised, leaving the image intact.

Gordon Newman regards an intact image as fair game. He has already made an impressive career out of debunking first one, then another stereotype. *Law and Order* used ciné vérité techniques, sustained situations and characterizations to present a "realistic" picture of Britain's police as corrupt, unfeeling bullies. In *The Nation's Health*, he presents a similar set in an imaginary teaching

hospital. In the profession, the Dr Jekyll of *Kildare* and *Finlay* have transformed grotesquely into the Mr Hyde consultants of modern chequebook surgery.

Fly-on-the-wall series like *Police* and *Your Life in Their Hands* should only occasionally, more usually, they presented little more than the awful, deadening ordinariness of any job. By choosing fiction and by dramatizing Dr Jessie Marvell's route through surgery, GP, gynaecology, geriatrics and psychiatry, Newman has been able to weight his evidence.

In a very real sense, *The Nation's Health* has collided with its own publicity and with C4's own follow-up forum, screened the night after each play. Even those uninterested or too squeamish to watch the original, what it's about: "seeing judgement" (words sharp picture), the usual clichés of shock horror, the NHS laid bare and condemned. Let us miss the point, each play is introduced by an epigraph: that psychiatric hospital "don't cure the sick but defend a society based on privilege and injustice"; that health should be judged by the quality of life, rather than its quantity; "The medical establishment prefers treatment to prevention"; "Objectivity and humanity cannot



Centre, Dr David Passmore (James Griffiths) talks to cancer patient, Ray Taylor (Tony Calvin), watched by Dr Jessie Marvell (Vivienne Ritchie)

coexist more than a little". These sound too persuasive to yield up their ambiguities straight away.

Even allowing for some dramatic compression of events, the series presents a picture of the NHS that is displayed back to front: the wrong end of the stick. A patient with a cardiac pacemaker is traded off against a convenient parking space; a ward is closed and sold off as a bullet-proof luxury wing to the Arabs. Doctors and consultants are seen as corrupt, greedy, cynical, racist, sexist, sonile, squeamish, insensitive, often drunk, easily bribed, eager to raffle their skills, only concerned with paying patients or with cases that will make an interesting paper for the *BMJ*. Doctors' language is clichéd, euphemistic and patronizing: "that's the ticket", "there's a good chap", "right as rain", patients are "popped" into surgery to be "fixed up", "put right"; the removal of half Ray Taylor's cancerous face is "heroic" (more acceptable than "radical") surgery, a "commando procedure", the womb is "that little box down there" that a menopausal woman won't be using any more.

In medicine, as in politics, ethics and accountability have become a clichéd area of concern; a family is "fobbed off with treatments"; a Medical Ethics Committee discusses the disfigurement of a patient after a failed operation; a similar committee is circumvented to allow an American researcher to experiment with implanted HeLa cancer cells, using elder-

ly patients without families.

More worrying than these fictional details - some of them undoubtedly based on fact - is Newman's attack on mainstream medicine and its practitioners and his implied support for "alternative" therapies. Vivienne Ritchie, who plays Dr Jessie Marvell, says the name is meant to slip in a point) is unsatisfactory as the vehicle for Newman's critique and for the supposed alternatives. The "little lady" is chosen by the hospital hierarchy for her looks and qualifications - apparently in that order - but becomes known and unpopular for her anti-establishment views and techniques. These, though, are so mildly expressed as barely to seem critical at all. Jessie drifts in and out of the series, quizzical and detached, casting long, searching looks, an infuriating half-smile on her face, amused and superior. She is made to appear barely competent, which must represent a serious dilution of the film's case.

The Nation's Health fixes the odds like a medieval morality play but ducks the issues that really might help re-align the "objective" and the "humane". Ray Taylor consents to the radical surgery on his face; the psychological and social consequences of such an operation are pointed out to him, coolly and without undue emotion. In the event, Ray dies of a sudden cardiac arrest in the recovery room. The elderly Mrs Downes is taken off radiotherapy and cytotoxic drugs at her own insistence and makes a dramatic recovery. There is no remission of her cancer but, untreated, her health is better. This equation of surgery with

misery and death, withdrawal of treatment with an improved "quality of life", is a dangerously naive one.

The logic of the instance suggests that all medical "treatment" should be stopped and replaced by "cure", still a poorly defined alternative; "prevention" for the time being, is a less realistic option, though ultimately the only acceptable one. Finally, both Newman's examples dodge the important questions: how would Ray Taylor have managed with half a face? could he have lived a "useful" life? a relatively happy one? What harm was done to his self-image? To his relations with his wife, family and friends? To stop with the catastrophic and here unconvincing) deconstruction is to ignore, presumably deliberately, all the medical apparatus of re-construction, skin and bone grafts, prosthetics, counselling and integration. Equally, how long did Mrs Downes survive and how happily? Is any of it worth the enormous effort?

The NHS, like the common law, the education acts, the civil airways charters, was geared, by definition, to large numbers. The small-is-beautiful philosophy of alternative medicine is a luxury, elitist option, which assumes that ordinary people are clever, leisured and wealthy enough to spend the time, money and physical and mental effort to cure themselves.

The first five talks (to be held fortnightly from October 14), will be given by journalists whose approach to work in the media has already challenged old traditions and orthodoxies. Helen Baehr describes the approach of her Channel 4 documentary series, *Broadside* which is committed to using women at all levels of production, on and off screen, and on October 28 members of the programme's production staff will lead a discussion on Channel 4's *Edgewise Alternative*.

Ain FitzGerald

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From the end of November, "The Genius of Venice", the greatest exhibition of Italian Renaissance art seen in this country for over thirty years, will open at the Royal Academy in London. Featuring many priceless masterpieces by the finest Venetian artists, it will be a magnet for all who have an interest in great art and of particular benefit to students of the subject. Special arrangements for school parties to visit the exhibition have been made by SEI Ltd and at exceptionally low prices. Private viewing of the exhibition is arranged on each Monday morning from November 28th until March 5th.

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Talk about the media

The Triangle, Birmingham's newest arts centre on the campus of Aston University, is to be the venue for a series of lunch-time talks on "Media Matters" this autumn, organized by Birmingham Film Workshop, a small independent company based at the Triangle.

The first five talks (to be held fortnightly from October 14), will be given by journalists whose approach to work in the media has already challenged old traditions and orthodoxies. Helen Baehr describes the approach of her Channel 4 documentary series, *Broadside* which is committed to using women at all levels of production, on and off screen, and on October 28 members of the programme's production staff will lead a discussion on Channel 4's *Edgewise Alternative*.

Ain FitzGerald

Next week

Video kids: a special series of articles on the social effects of the video revolution, including reports on new research, parliamentary initiatives for reform, market trends, and interviews with child addicts, parents and teachers

Out of your mind

By N J Mackintosh

Discovering the Human Mind. By Stuart Sutherland. Longman £6.95 582 39221 7

Your Memory: A User's Guide. By Alan Baddeley. Penguin £4.95 14 02 24890

Experimental psychologists have seldom succeeded in explaining the mysteries of their trade to the outside world. Undaunted by the failures of others, Stuart Sutherland and Alan Baddeley, two of Britain's most distinguished academic psychologists, here try their hand. The scope of their books and the audience they are aimed at differ widely. *Discovering the Human Mind* is much the more general of the two; at less than half the length of *Your Memory*, and with half its pages taken up by pictures, it is a rapid and jaundiced critics will grumble, somewhat superficial survey of the general field of psychology. But within its limits, Sutherland has managed to provide a quite remarkable amount of information, ranging from neuroanatomy and physiology, through perception, learning, memory, intelligence, and motivation, to psychotherapy, hypnosis and altered states of consciousness. Some of his readers may be surprised to find such a high proportion of a book about the mind devoted to discussions of nerve cells and neurotransmitters and to diagrams of parts of the brain, but it is a measure of Sutherland's skill that he can explain the relevance of such knowledge to psychology without encouraging others of his readers to fall into the opposite trap of supposing that an understanding of the brain will immediately tell us everything we could ever want to know about how we think, feel and react to the world about us. The consoling academic will no doubt complain that he has greatly overestimated the sense in which such complicated disorders as Parkinson's disease or schizophrenia are due to an imbalance in the neurotransmitter dopamine. But it is unrealistic to expect too much subtle qualification in a book of this nature.

My own complaint is rather that Sutherland provides too much superficial detail about too many topics without taking the time to explain what he is talking about. For example, a paragraph and a picture supposed to explain the nature of stereoscopic depth perception omit the crucial information necessary (at least for the 15-year-old schoolchild I tried it out on) to understand the phenomenon. A statement that long-term memories appear to take time to become established gives no hint why psychologists should have thought so, let alone the more interesting possibility that they might have been wrong. Relatively detailed accounts of psychotherapy, psychoanalysis and behaviour therapy make little attempt to discuss the contrasts between them, not even mentioning what is surely one of the most obvious and important points of difference, that abnormal behaviour is seen by some as mysterious, full of hidden purposes and significance, and by others as essentially fortuitous with no deeper layers of meaning. The industrious reader will acquire a great deal of new information from reading this book; I doubt whether he will have grasped much in the way of principles on which to hang that information.

Lavish illustration, it seems, is an essential ingredient of a popular book. Some of the photographs and diagrams in Sutherland's book are genuinely useful, and not only those illustrating such unfamiliar objects as a synapse or the limbic system. Two photographs side by side, one of a grief-stricken family at a funeral, the other of hysterically excited fans at a pop concert, make the point, more clearly than any words could, that the physiological bases of many of the emotions we feel may be closely similar and that the distinctions we draw between them rest to a surprising extent on our interpretation of the situation in which we find ourselves. But many are simply misleading. The drawing of some cheerful looking dogs jumping across a fence in a tree-lined yard gives a grotesquely false impression of the brutality of experiments on so-called "learned helplessness"; an impression not corrected by a totally inaccurate account of the experiments provided in the caption.

Sutherland's book spends one out of some forty two-page chapters on the way in which we learn and remember.

Alan Baddeley's 200 pages are devoted entirely to this topic. Although recognizably aimed at a popular market (witness the lavish illustrations), the audience is presumably the intelligent layman rather than the inquiring child. I suspect that psychology undergraduates will be among its most assiduous readers. But teachers, who are after all professionally concerned with the way we learn and remember, could find much to interest them. Experimental psychology, it is often said, is an artificial, laboratory-based science which pervasively manages to tell one nothing about the real world. There are times when the reader of Baddeley's book may have his worst suspicions confirmed: there is not much of immediate appeal in his discussion of Ebbinghaus' research on the learning by rote of lists of "non-sense syllables" or of the influence of retroactive interference and proactive inhibition on forgetting. But Baddeley is the director of a research unit specialising in applied psychology and

has a good feel for the practical relevance of psychological research. One of the problems in applying principles derived from experimental analysis is that they are often found to be strictly limited, their operation being cancelled by that of another equally valid principle working to produce an opposite outcome. Thus there is ample evidence that, in the psychologist's jargon, spaced practice is often more efficient than massed: if you wish to learn some new information or a new skill, it will be better to practice a little at a time with intervals between practice sessions rather than to concentrate your efforts in one long session. But there is a limit to this, for it is also true that having recalled a newly learned bit of information on one occasion makes it easier to recall it again later. Thus the interval between successive practice sessions should not be so long that you forget all you have learned between each session. The ideal solution, then, taking advantage of both principles, is to start with

relatively short intervals, and to progress as rapidly as possible to more distributed practice as learning proceeds. Similarly, if you wish to apply a newly learned principle or rule to a different situation, it is better to have learned the principle in a variety of settings in the first place: narrow training does not necessarily generalize. But, working against this, it is harder to learn the rule in the first place if the training has been too varied. Psychology may well be an inexact science; it is certainly a complicated one. The phenomena it seeks to study and explain are subject to a bewildering variety of conflicting influences and occasionally predict the circumstances under which now one and now the other will predominate.

My survey sample preferred the illustrations in Baddeley's book to those in Sutherland's; several of them form part of the experiments and observations that the reader is invited to try out for himself. Although he may occasionally stumble over the detail, the reader is made to think for himself and will end up with a good understanding of psychological research on learning and memory.

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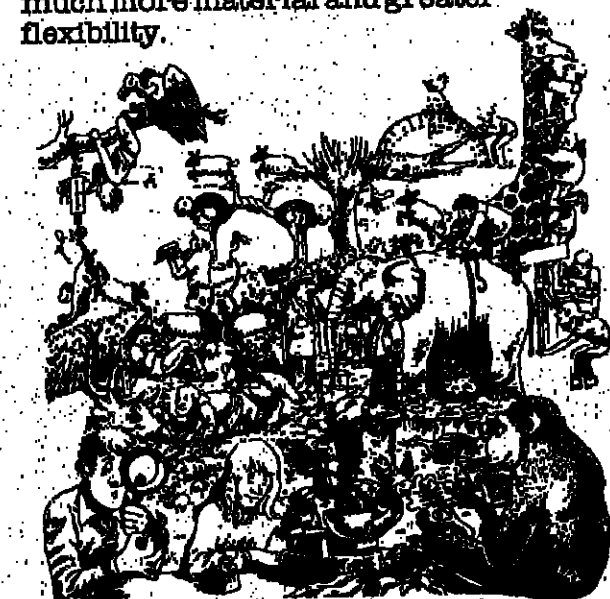
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Quintessential Englishman

Wilkes and Liberty. By George Rudé. Lawrence and Wishart £3.95. 85315 579 8

John Wilkes was born on October 17, 1725 in St John's Square, Clerkenwell, only a few yards away from the present day site of *The Times* Supplement building. If *Cin* and *Enthusiasm* were two of the great social forces of the eighteenth century, Wilkes's parentage accurately reflected his society: Israel Wilkes was a wealthy distiller and Sarah Wilkes a tough-minded nonconformist who regarded her son's adult adventures—political and sexual—with unremitting distaste. The mobs who followed "Wilkes and Liberty" up and down Holborn and Pall Mall were fuelled by much the same blend of strong spirits and moral fervour.

George Rudé's study of Wilkes now surely deserves the over-worked "classic" tag. First published in 1962, it made no attempt to rival the work of Wilkes's early biographers or those who had concentrated on the more marketable aspects of his career: membership of the notorious Hell-Fire Club and (presumed) authorship of the blasphemous and obscene parody of Pope, "An Essay on Woman". As the title suggests, Rudé concentrated on a central strand of Wilkes's career and the political background which made "Wilkes and Liberty" such a potent rallying-cry.

The government of George III—as the American colonists were shortly to insist with even greater force—was autocratic and corrupt. George made full use of the system of court patronage and surrounded himself with aristocratic placemen, many of them

Scots. He manipulated a parliamentary system still far removed from its modern form to consolidate and centralize his own power. In an age of rising industrialism and class awareness ("consciousness" seems too strong for the 1760s) such a government was increasingly isolated from the "lesser sort", the "mob" it feared so much.

Wilkes knew and played the crowd like a virtuoso. His support came not only from the rising urban working class but from merchants and the clergy (and an occasional aristocrat excluded from the Hanoverian clique). John Wilkes acted as leader and focus of an effective political opposition, something clearly lacking 200 years later despite the freedoms he fought for and won.

The government line was publicized in *The Briton*, a journal edited by the Scottish novelist Tobias Smollett. Wilkes's *North Briton* took hefty swipes at Lord Bute's government and from June 1762 until April 1763 sustained a ferocious attack on political privilege. Issue 45 (and copies of "An Essay on Women") were seized and a whole "dirty tricks" apparatus set in motion against Wilkes. The success enjoyed by *North Briton* is clearly measured in Bute's desperate attempts to silence and outlaw its editor, Wilkes's imprisonment and expulsion from parliament provided the perfect occasion for the three crucial issues which brought the crowds to the streets and united the coal-beavers of Shadwell and Wapping with the merchants of St James's in a common cause: freedom of the press, parliamentary privilege; and the whole issue of "general warrants" for arrest, a crucial constitutional and legal point.

Wilkes picked the lock of the early Hanoverian state and helped construct the system of checks and balances which are the mainstay of modern parliamentarism and the guarantee of protected political opposition.

Perhaps inevitably, Wilkes grew more conservative with age. During the Gordon Riots, he shouldered a musket against the very mob that had cheered for him. Like his ally Edmund Burke, he looked on the French Revolution with blank and horrified puzzlement; Wilkes was closer to Voltaire than Robespierre.

Dorothy George, Peter Mathias and Basil Willey have, in their different ways, created our image of the eighteenth century. Rudé, almost miraculously, combines a variety of approaches to provide a convincing and completely readable picture of the times. He was fortunate in that Wilkes is probably the quintessential eighteenth-century Englishman and an endlessly engaging figure.

Social history all too often gets bogged down in statistical detail in absurd and unsubstantiated generalizations. George Rudé managed to combine a grasp of political history, psephology, social psychology with a warm sympathy for his subject and a wryly humorous forgiveness of his failings. A lesser man would probably have tried to turn Wilkes into fiction; the reality is far more impressive. Compared to John Wilkes, most contemporary politicians and political journalists are pygmies. Only a society in transition could have thrown him up. It's to be hoped that the transitions of our own day provide us with as good. **Brian Morton**

Cautionary tale

Bishop Otter College and Policy for Teacher Education 1839-1980. By G P McGregor. Pimlico Press £11.50

"Yesterday's solutions create today's problems" is Gordon McGregor's neat summary of policy for teacher education between 1839 and 1980. Bishop Otter College's history, which spans those years, illustrates his views and offers important insights on social and economic affairs during the period.

McGregor offers entertaining and revealing information about the college, from its origins as a nineteenth century part of a developing national system, to the present, when teacher training has undergone yet another metamorphosis.

He tells of the principal's claim, in 1888, that her students proved better teachers than those with pupil teacher experience, in rebuttal of criticisms by the Cross Commission. She carried her argument further by pointing out the bigotry of some school authorities who refused to appoint her students because they were too well bred, although her own college was almost as bigoted in some ways—for the short time she received a stipend, she was Principal, but for the 22 years she received no pay, she was Lady Principal.

But McGregor's main concern is "the erosion by government grant of the voluntary institutions (as) a feature of educational development in the

nineteenth and twentieth centuries". Behind that there is the issue of independence, with its four continuing sub-themes: recruitment of students; balance of responsibility between State and Church; religious and secular instruction; and professional and cultural training, including opportunities for women and the balance of influence between local and central government. McGregor's case is that once an educational institution accepts any form of grant aid, it ceases to be independent. It thinks it has any significant independence.

The lack of positive government policy on teacher training has fudged, budgeted and finally bludgeoned times, but McGregor's blow-by-blow account of the complex—and in his view hopeless—negotiations for Bishop Otter College's freedom of action during 1971-77 paints a clear picture. He vividly describes the effect of that period on the teachers and students who were trying to get on with their work.

It is an account which leads to a polytechnic and universities only well read. Government still may have clear policies, but it certainly does have power over institutions. The pragmatic issue for directors, principals and vice chancellors is how to ensure that the power is used towards policies which offer the best opportunities educationally.

Bishop Otter College's story is a cautionary tale.

Norman Evans



A bay windowed terrace being built in the Clapton district of Hackney in the 1880s. A chapter on the development of the suburbs is part of *The Making of Modern London 1815-1914* by Gavin Weightman and Steve Humphries (Siddick and Jackson £11.95, paperback £7.95). There are chapters on the East End, West End, the City, the influence of the railways and social reform, all enlivened with period photographs.

Spiralling movement

Narrative Fiction: Contemporary Poets. By Shlomith Rimmon-Kenan. Methuen £8.50 and £3.50. Literature and Propaganda. By A P Foulkes. Methuen £8.50 and £3.50. Poetry as Discourse. By Anthony Easthope. Methuen £8.50 and £3.50.

The "New Accents" series, to which these three volumes belong, is building up into a good introduction to aspects of contemporary criticism, particularly the insights gained through linguistics and the work of French critics. The individual volumes vary in quality and appeal, but the series as a whole successfully makes innovations in theory available to students who will find them easier to assimilate in this form than in the prose of Lacan, Derrida or other philosophers in the genre. Of course, there is a price for ecstasies, particularly on the second-hand market. Shlomith Rimmon-Kenan pays it in her survey of narrative and a critical text; it starts at break-neck speed from character to narrative time, to status of narrator, hoping to focus the reader's dazed senses by frequent guideposts of the type: "It is to the rendering of speech that the next chapter will be devoted". As a summary of views on this complex and broad topic, her book is useful but it would benefit from some more post-

tive and less pervasive conclusion than her appeal to a "kind of spiralling movement" which will "hopefully keep us all on the move".

In contrast, A P Foulkes' *Literature and Propaganda* looks at a narrow field, makes no attempt to be comprehensive and ends with a close reading of Arthur Miller's play *The Crucible*. The result is a stimulating re-examination of propaganda, suggesting its implications for all literary texts and pointing to the means of demystification of the more elusive forms of indoctrination. *Poetry as Discourse* is the best of the three. If only because it swings abruptly from genuine insight to pure silliness. The latter centres mainly around Anthony Easthope's belief that the dominant metaphorical forms in Western literature from the sixteenth century onwards can be categorized as "bourgeois". The supposed "cohesion" of bourgeois poetic discourse, from Wyatt onwards, might seem to qualify him from serious attention. But, like some other tedious simplifications, this one collapses under its own weight. It is likely to find that, more in line with other two volumes, it is engaged by Easthope in a challenging and probably productive dialogue.

Paul Carroll

Light in the dark

A Guide to Anglo-Saxon sites. By Nigel And Mary Kerr. Granada £2.95. 58608423 1. Exploring History series. The Saxons. By Tony D Triggs. Oliver and Boyd £1.55. 05 003487 1. History in Evidence series. Life in Saxon and Viking Britain. By Valerie Hetzel. Harp £1.75. 245 53565 9

The Dark Ages was once the favoured term to describe the period in which it was thought our civilization had been saved by the skin of its teeth (in Lord Clarke's memorable phrase): a period about which little was known in depth, or for certain. Even today many questions remain unanswered. If anything, the old certainties have been replaced by doubts. The linguists and historical geographers, who identified phases of Anglo-Saxon settlement from place name endings, have had their work challenged by archaeologists, who have found little corroborative evidence in the remains of early Saxon settlements. Much of the written evidence, too, is of doubtful provenance. This is why Nigel and Mary Kerr's *Guide* is so useful, since it directs attention to the most important Anglo-Saxon sites in what used to be Wessex, Mercia, Northumbria and East

Anglia. At West Stow in Suffolk they describe the controversy which has arisen over possible explanations for the excavated pits found under Saxon huts. Is the pit "a sunken floor or an under-floor space"? The Kerrs explain that traditionally these were interpreted as "pit dwellings" in which "the inhabitants lived on the earth floor with a simple tent-like structure above". However, evidence found at West Stow suggests "that the holes were used not as living floors but as storage or air spaces below suspended floors".

All of this is clearly visible to visitors to West Stow, including the many school parties who come to study the reconstructed huts on the site. But neither of the two textbooks deals satisfactorily with this issue, nor do they mention the West Stow village. Tony D Triggs states unreservedly that the Saxons "covered the pit with a wooden floor". He explains the pit dwelling theory and then provides evidence for children to jump to his conclusion that all Saxon huts had timber floors. Oddly enough he makes no mention of the fact that the hut and the house, depicted in two drawings on page 7 in his book, illustrate both types of building at West Stow.

Valerie Hetzel scores a point by using annotated cross-sections to illus-

trate the differences between the two types of hut, but gives no indication of the actual field evidence (such as post-holes) which led archaeologists to suggest these possibilities in the first place—a deficiency, I would have thought, in a book entitled *History in Evidence*. However, she does distinguish the historian's main sources of evidence for the Saxon period and indicates some of the problems they raise. In her text she uses Bede, Gildas and the Anglo Saxon Chronicle, as well as reconstructions of the Nydam and Cloke ships, the Sutton Hoo excavation, Bayeux Tapestry, aerial photographs and other sources. This is a pleasant book to use, with many excellent diagrams and photographs, but its usefulness in schools is diminished through lack of an index. Tony D Triggs uses somewhat similar source material, and also a number of extracts from children's fiction as well. This is an excellent idea but it may cause children to confuse fact with fiction, since the extracts are insufficiently signposted as being fiction. Nonetheless this is a book which can be recommended for use with a slightly lower age/ability range than those who will use Valerie Hetzel's book.

Philip Sauvain

Guided history tour

Egyptian Sculpture. By T G H James and W V Davies. 07141 2021 9. Roman Britain. By T W Potter. 07141 2023 5. Assyrian Sculpture. By Julian Reade. 07141 2020 0. Clocks and Watches. By Hugh Tait. 07141 2022 7. British Museum £4.95 each.

How exciting to have the Keeper of Egyptian Antiquities and his deputy lead you around the British Museum's dazzling array of portraits and hieroglyphs, breathing life into the smooth, cold, massive slabs of limestone and granite, diorite and schist, that fill the vast gallery. We are taken from one end to the other, with here a remark on grinding techniques or design grids, there an explanation of belief or symbol; they point out the (inadequately represented) impact of Akhenaten's revolution, and draw attention to evidence of the craftsmen-sculptors' superb skills. Regrettably we cannot stop at T G H James or W V Davies in mid-flow to clear up just what bothers us, for here the help appears in the form of the latest generation of BM souvenir-guidebooks.

Once you could buy a popular guidebook (for half-a-crown or so)

jam-packed with almost everything you wanted to know about the BM's collections and their context, set out in prosy, pedantic detail and crammed with helpful line-drawings and photographs. The gaudy new guides are less exhaustive and more ambiguous in purpose: as *Roman Britain* explains, "It is a work that the visitor will carry away as a visual reminder of what he or she has seen, and one which will provide some background information."

The first four, dealing with very different displays, adopt differing approaches. T W Potter, whose galleries are more self-explanatory and less systematically organised than the Egyptian material, offers a general survey of Roman Britain based on its assorted relics. He sets it in the imperial context: how Romans invaded, settled, invested, traded, advised on town planning, imposed patterns of farming, worship and administration, absorbed and transmuted the native world. His book comes to life in the enthusiastic case-study of Fenland villages where Dr Potter's own excavations have produced remarkable discoveries.

Julian Reade, like his Egyptological colleagues, summarises the archaeological story and then explores his galleries. He has a narrower period and a limited number of sites to cover in

surveying the Assyrians' history and habits. His portraits of those fearsome monarchs with mouth-watering names seem more subdued than the traditional versions. He stresses cool reason and administrative skill rather than cruelty and violence. The finely detailed limestone features of Ashurnasirpal decorating his buck cover illustrate the new viewpoint: warm-coloured, calm, wise dignity, each curls whisker in its style and in full-length, harshly-lit black-and-white, dominated older Assyrian guidebooks with its arrogant vigour.

Hugh Tait's account of the relatively new Clocks and Watches collection, tucked away in its remote corner, covers less familiar ground. Excellent new photographs help to explain the difficult subject of mechanical timekeeping in the Renaissance centuries, though for some of us prose and picture will never suffice without working models and monosyllabic explanations. The mixtures of colour with black and white is here at its most useful, showing technological ingenuity coupled with artistic skills in magnificent timepieces.

Pricy, these new guides, and sometimes too slight; but informative and attractive.

Tom Corfe

Children's literature

Child of Chile

Talking in Whispers. By James Watson. Collins £5.95. 0 575 032723

Topicality is the spice of journalism, the bane and hemlock of "art". Teenage literature has rarely aspired to be such a rigorous art. For small mercies let us be thankful. For larger ones, such as *Talking in Whispers*, one of the winners of this year's Other Award, let us be slightly more envious.

James Watson is a bold writer. His novel is about Chile, about the grass inhumanity of human to human, about endurance, about heroism before which Biggles should blush, about the real brutality and barbarism of our century, our transitional political times.

Political realism is not new to Mr Watson—he has tackled it before in *The Freedom Tree* and in his plays—but through *Whispers* he brings it anew to the genre of modern young-adult writing. He uses in this novel the formula of the adventures story—a teenager's peregrinations through danger, and affection, loyalties and hardships, to tell a dire tale. An unpleasant story by any account and a

gripping one.

Andrea Laretta is the son of Juan Laretta a sort of Bob Dylan, or worse, of Chile. Andrea's mother is dead. He is an affectionate companion of his father's singing group. They perform in Chile, today's Chile, and build a reputation. They are clearly on the side of the people against a military junta which is cast as the simple barbaric force it is. Juan is supposedly killed in a crash but in reality taken prisoner and kept with thousands of others in political captivity. Andrea sets out on a quest to find his father. He finds on the way two puppeteers, a young man and woman, learns to love the woman, discovers an American photographer in a crowd who holds and passes on to him, like a baton in a relay for freedom, a camera charged with vital truth about the junta's murderous acts, and ends up tortured, bloody but unbowed.

The paraphrase does the story little justice. Andrea goes through subtle phases of thought though his circumstances are the most brutal any teenage reader will meet in a contemporary novel. He is subjected to torture. Mr Watson has to find the prose that will express what runs through one's head when electric shocks are running

through one's body and he does it. Andrea strikes us as real though sometimes (such a piggling sometimes) his prose strikes us as more Mr Watson's than his. For the reader compelled to follow his fortunes by the narrative, there are oblique political lessons on the way. Though written without bludgeon a reader shouldn't miss the fact of the political complexity in the acts of the characters.

The book says Pipocet and his torments must go, it says that to some questions in our world there is only one side, it says that people wherever, however, fight back with what they have and it says that bold political fiction can and ought to be written for a readership that is all too often fed the narrower, coarser dilemmas of British life.

Farrukh Dhondy

Delroy is Here, by Rhodri Jones, reviewed on September 30, is published in a paperback schools edition at £1.80 by University Tutorial Press as well as by Dent.



Fulvio Testa's *If you Take a Paintbrush: a book of colours* (Andersen Press £3.95) displays this artist's usual wit and talent. Here oranges are unequivocally orange.

Number systems

Confident Mathematics Teaching 5-13. By E. Biggs. Nelson £4.95. 0 7005 0581 4. Elementary Mathematics for Teachers. By D. F. Devine and J. E. Kaufmann. Wiley £19.95. 0 471 86254 1.

Dr Edith Biggs has been at the forefront of mathematical education for many years. An HMI for nearly a quarter of a century, she retired after a decade as staff inspector.

Retirement did not, however, mean cessation of activity designed to help teachers. A recent project has investigated teachers' attitudes to mathematics.

style and the impact made on these attributes by in-service training. Miss Biggs has been a constant protagonist of in-service education. She acknowledges that "the majority of teachers still find mathematics a difficult subject to teach and tend to rely on telling children work through textbooks or worksheets without any practical work or discussion. The basic problem is that few, if any, teachers have learned mathematics through investigation themselves".

Many courses have been conducted, teachers' centres have become commonplace, and the quantity of printed matter professing to enlighten and enrich mathematics teaching at all stages has been astonishingly prodigious. Yet the malaise has persisted.

Dr Biggs devised and conducted research, thoroughly monitored and evaluated, on the effects of introducing innovative teaching styles in a representative group of schools. With the cooperation of an outer metropolitan borough, six first schools (for children of ages 5 to 8) and six middle schools (ages 8 to 12) were involved. Half were in a "new-town" area, the other half in a "more suburban area" where the fathers were skilled and semi-skilled. The work was carried out soon after a period of reorganization, and when each school gained on its establishment a mathematics coordinator.

A conference, working parties outside school, observation visits and support visits in school, and interviews with individuals and groups were among constituents of the inquiry. Details of each phase and of the analysis of those concerned about the quality of current mathematics teaching. Some of the conclusions (tentative or firm) are predictable, others more unexpected.

What is incontrovertible is that the great majority of teachers need support in their work. They should not be left to struggle in isolation. Even those who have been adequately trained require more than the tacit approval of an understanding head or the occasional visit from a less than helpful adviser. All teachers of mathematics should themselves understand and enjoy the subject if they are to make their teaching purposeful and attractive to their class. The specific changes in curriculum, approach and method advocated by Dr Biggs may or may not be the best, whatever that means. That is not the

significant thing. The essential is that teachers should constantly think about what they are doing, and why, and how. But they cannot do this on their own.

A vast American text book goes into great detail on every topic likely to appear in basic mathematics courses. From number systems through geometry and mensuration to the elements of statistics (not forgetting the ubiquitous sets and computers), it considers techniques and applications. Intended for teachers, actual and prospective, it regards problem-solving as the focus of school mathematics (which recalls Dr Biggs' useful phrase "problem-solving mathematics").

all levels must take full advantage of "the power of calculators and computers". The whole, while proflix, forms a credible work of reference and stimulus.

A Review of Research in Mathematical Education. Part A £9.95. Parts B and C each £4.75. NFER-Nelson.

The Cockcroft committee of enquiry into school mathematics teaching received, among a deluge of material, reviews of research into various aspects of mathematics education. Three volumes, up-dated to include very recent work, how deal with learning and teaching, the social context, and curriculum development.

This distillation, by experts, is searching and revealing. The largest part on learning and teaching, is naturally concerned with attainment and method. Are children less competent at mathematics today than were earlier generations? Are there intrinsic reasons why mathematical understanding is hard to achieve? What teaching methods are most successful? And, key question, has research produced hard facts upon which to base answers to such queries, or are the loudest arguments based on emotion or subjective judgment?

The mass of bibliographical references included in all three parts of this seminal work shows that there is no lack of earnest consideration of the issues. Also, it becomes clear that these issues are not a classroom prerogative. Part B covers internal and external constraints on a teacher's work, and is particularly useful on the effects of training (preservice and inservice) of mathematics staff.

Then the "historical and comparative view" of what has been and is happening to the curriculum shows that, internationally, the teacher can not so easily determine the change he or she affects his programme. This, a most competent, volume contains a particularly telling phrase: "The needs, then, are obvious; the solution is not". These reviews are not the easiest of reading, but a study of the processes and conclusions they explore is rewarding. Maybe that study could lead to an effective solution of at least some of the problems bedeviling so much of today's mathematics teaching.

F. W. Kellaway

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Jeremy Isaacs, Channel 4's Chief Executive, has said that Channel 4 will take schools broadcasts from the ITV companies provided that schools can eventually be persuaded to accept videocassette distribution or the night-time broadcasting of schools programmes. Felicity Grant looks at the background to this statement and to the future.

1. *Chlorophyll a* and *Chlorophyll b* were determined by the method of Lichtenthaler and Whistler (1973). The total chlorophyll content was determined by the method of Arar and Cook (1977). The carotenoid content was determined by the method of Lichtenthaler and Whistler (1973). The total carotenoid content was determined by the method of Arar and Cook (1977). The total protein content was determined by the method of Lowry et al. (1951). The total lipid content was determined by the method of Bligh and Dyer (1959). The total carbohydrate content was determined by the method of Dubois and Gilles (1950). The total nucleic acid content was determined by the method of Burton (1956). The total ash content was determined by the method of AOAC (1970). The total moisture content was determined by the method of AOAC (1970). The total dry matter content was determined by the method of AOAC (1970). The total organic acid content was determined by the method of AOAC (1970). The total alkaloid content was determined by the method of AOAC (1970). The total saponin content was determined by the method of AOAC (1970). The total tannin content was determined by the method of AOAC (1970). The total flavonoid content was determined by the method of AOAC (1970). The total phenol content was determined by the method of AOAC (1970). The total terpenoid content was determined by the method of AOAC (1970). The total steroid content was determined by the method of AOAC (1970). The total glycoside content was determined by the method of AOAC (1970). The total alkaloid content was determined by the method of AOAC (1970). The total saponin content was determined by the method of AOAC (1970). The total tannin content was determined by the method of AOAC (1970). The total flavonoid content was determined by the method of AOAC (1970). The total phenol content was determined by the method of AOAC (1970). The total terpenoid content was determined by the method of AOAC (1970). The total steroid content was determined by the method of AOAC (1970). The total glycoside content was determined by the method of AOAC (1970).

For better or worse

where in Paper 1 (the lowest level). It is not only the objectives and associated questions which fail to reflect the aims, but also the syllabus. In spite of the fact that much of mathematics should be related to practical/realistic situations, the consortium found it necessary to include "applications" as one section out of twenty in its syllabus, as though it were a topic rather than an approach to teaching the subject. This results in the setting of questions out of context which test recall rather than application as in:

- 7) The median of 3, 4, 7, 8, 3 is
A) 3 B) 4 C) 6 D) 7 E) 8

Also, note the distraction of the answers which are arranged in order so that a pupil with a somewhat hazy notion of a median is tempted to choose the middle one.

The syllabus alone tells one very little, but the examiners demonstrate their interpretation of it by the questions they set. In the case of "NUMBERS" we consider it a valuable and enjoyable experience for pupils to work with different classifications of numbers such as even, odd, triangle, square, prime, number chains as suggested by the syllabus. However, we would prefer to see examination questions which require recognition and use of number properties rather than those which are dependent on a pupil's ability to recall a definition as in:

- 2) Which ONE of the following is PRIME?
A) 57 B) 61 C) 63 D) 65 E) 69

Also note that this is the second question of the first paper for the weakest candidates. The pupil who successfully recalls the definition may then be faced with a considerable number of calculations (no calculator allowed).

Although our comments have been confined to Paper 1 and level A (the lowest level) our reservations about this examination are felt throughout all of the papers. The whole idea of distractor answers designed to catch

the wrong answers is a failure which many have experienced during their mathematical education. This particularly applies at level A which is aimed at the average (Grade 4 CSE) pupil.

The most unpleasant feature of this document is the inextricable move from the process/modelling end of the spectrum through to the factual/algorithmic end as one passes down through the hierarchy of aims, objectives, syllabus, examination questions. Is it deliberate policy or ineptitude which results in an examination paper which is the antithesis of the aims? Whichever it is, the resultant effect is all too predictable. The power to influence is a mirror image of the hierarchy mentioned above. It is the examination papers which follow by the syllabus, and trailing a long, long way behind, the objectives. As for the aims, if read at all, they will raise a hollow laugh.

The consortium may claim that these papers are only specimen copies and that the actual examination will be better. We are deeply pessimistic about this as any significant improvement would depend on a radical shift in attitude. Furthermore, as teachers, we are powerless to influence the consortium. We have been taken into account in their previous set of consultative papers, and yet the same old, same old, same old. There is now no guarantee that this tradition will continue. It would appear that this consortium of boards is certainly taking a lead, but in which direction?

Using the opportunity that the requirements of the recommendations of the Cockcroft Committee or will it indeed be the new proposals constraints on work in secondary schools?

Mathematics Counts Reports of the Committee of Inquiry into the Teaching of Mathematics in Schools under the Chairmanship of Dr W H Cockcroft. London: HMSO 1982.
Aspects of Secondary Education in England. A survey by HM Inspector of Schools. London: HMSO 1979.

David Gmiterek and Sarah Sharkey are on the staff of the North Westchester Community School, London.

Can the micro play a part?

Anita Straker advises on computer software as a support for primary mathematics.

The Cockcroft Committee in their report "Mathematics Counts" recommended (not in this order) that mathematics teaching should be a balance between:

- Practical work;
- Exposition by the teacher;
- Practice by the children;
- Discussion between children, and teacher and children;
- Problem solving, including applications;
- Investigations.

The Committee said they had seen a great deal of exposition by the teacher and practice by the children, and a little practical work, but that instances of discussion, problem solving and investigations had been harder to find in the mathematics classroom. Later, and separately, the report recommended that teachers should provide many more opportunities for children to undertake mental mathematics.

Can the micro play a part in the development of primary mathematics along the lines put forward by Cockcroft? Practical work is generally thought of as using real materials and the environment, but if computer software can support teachers by providing complementary activities which are otherwise difficult to devise in the classroom using traditional resources then the answer must surely be an unreserved "yes".

Exposition
Explanations by the teacher about how something is done, or why it is happening, are one part of mathematics teaching. Good exposition is not a monologue, but consists of a series of questions asked by the teacher and responded to by the children.

Since the computer is good at drawing and redrawing accurate diagrams and graphs, or at producing simple pictures and animating them, computer software can support this style of teaching. Good exposition is not a monologue, but consists of a series of questions asked by the teacher and responded to by the children.

One of the reasons for teaching mathematics is to help children develop problem-solving skills. Some problems are in the form of mathematical puzzles (REVERSE, FARMER, FROGS, BURLAR and WATCHPERSON). Primary children generally lack confidence in problem-solving situations but such programs can provide them with additional opportunities for developing their mathematical thinking. The role of the teacher in encouraging discussion about the possible forms of solution is an important one here.

Practice
There is already an over abundance of practice material in textbooks, on work-cards and on work-sheets. Is it possible to justify micro time for even more of this type of activity?

Children practising tables with a program like TABCAR have been observed both to concentrate better and to respond with apparent enjoyment. There is no doubt too that it is our younger primary pupils who, with their shorter memories, benefit most from the immediacy of the feedback which can be given to them.

It is straightforward drill and practice programs have to be used, then perhaps they should offer something not offered by the textbooks such as estimation of angles without being able to measure them (ANGLES), simulation of work with concrete materials to bridge the gap between practical work and written recording (ADDING), or some practice programs will also reward the teacher for the effort being made by the children (COUNT).

On the other hand, the computer undoubtedly has a valuable role in encouraging children to use mental skills where the practice is an incidental part of a strategic game or puzzle. Programs like CONCEAL, GUSIN, TER, FLAGS or SUBGAME involve both strategy planning and the necessity to do simple arithmetic in one's head.

Investigations
A wide variety of software can act as a stimulus to children to talk about mathematics. Some, like TOYSHOP or COUNTERS, are number games, best played with two or three teams. The necessary strategy has to be discussed. If we played 6, then you would be able to play 2, and then...

A program like RIKATES on the other hand could involve a large number of children in a complex investigation.



in a discussion with their teacher about a corporate solution to the problem of tracking down the hidden treasure on a two or three-dimensional grid.

Some software can be used by the teacher to help develop through informal talking children's understanding of important concepts. EUREKA helps with graph interpretation, JANE with the idea of a mathematical function, and SEEK encourages the use of precise mathematical description in sorting and classification.

Different programs, like HALVING, GLASS, BUILD or MTALK, exploit the graphics capabilities of the micro, and can stimulate the use of language associated with shape, size, position, direction and movement.

Further possibilities are offered by the software that is designed to run like a film, without interruption by the teacher. In OOPS, for example, the computer will at random give the "wrong" answer to a displayed sum. The teacher can discuss with the children how often this might happen, which sums are "wrong", how many "right" answers could a single digit change be made to make the sum "right", and so on.

Problem solving
One of the reasons for teaching mathematics is to help children develop problem-solving skills. Some problems are in the form of mathematical puzzles (REVERSE, FARMER, FROGS, BURLAR and WATCHPERSON). Primary children generally lack confidence in problem-solving situations but such programs can provide them with additional opportunities for developing their mathematical thinking. The role of the teacher in encouraging discussion about the possible forms of solution is an important one here.

Questions like "What would happen if we changed..." or "How many different ways could we..." "Would it be possible to..." all help to extend the children's thinking about a particular problem.

However, the biggest contribution the micro could make to the range of children's problem-solving skills may come from encouraging pupils to use the computer creatively by commanding it to carry out instructions. CRASH, for example, requires a series of logical moves to be defined in order to circumvent an obstacle course. LOGO is a considerably more sophisticated, but can be used by infants upwards to construct increasingly intricate patterns and pictures. This encourages understanding of some powerful geometrical ideas.

For numerical problem solving simple programming by children in the language, BASIC is a possible choice. Primary school mathematics abounds with number situations which can be finding solutions to open sentences, testing the properties of numbers, solving applied problems such as finding averages or calculating percentages, solving measurement problems connected with perimeter, area or volume.

It is well within the capacity of older junior children to find the dimensions of a rectangular box of fixed volume which will make the area of the sheet metal a minimum, or to investigate what happens to the perimeter and area of a rectangle or circle if the dimensions are doubled or halved. This

also within their capacity to write their own programs to find sums, differences, products or quotients, to find factors, to generate the sequence of triangular numbers, to print all primes up to 1000 or beyond, or to solve all the number puzzles in "Limerick Number Puzzles".

In constructing such programs not only will the children be acquiring skills which could be useful later (some people argue that the algebra taught in secondary schools should be introduced through programming), but also they will gain more insight into the properties of the shapes and numbers with which they are dealing.

Applications
Some programs require children to use mathematical skills to solve simple problems connected with everyday life. In SHOPPING, for example, the child must plan a shopping expedition, and collect the necessary purchases before the bus leaves.

Other programs can involve children in the application of their mathematical skills across the curriculum by simulating a more complex real life problem. The difficult arithmetic is done by the computer so that children can concentrate on the elements of choice and decision making. In LITTER the streets of a town have to be kept tidy. In CANDYLOSS a small sea-front business at Blackpool has to be run successfully. In MARY ROSE bearings must be taken, distances calculated, estimates made, in order that the treasure trove may be found.

In an alternative application children can use mathematical ideas and skills to ask appropriate questions and seek relationships in a data collection. FACTFILE could be used by children to record information about, for example, different trees: measurements of the diameter and girth of the trunk, the height, spread, average leaf length, average leaf area, and so on, could all be entered. FACTFILE and PICFILE could then be used to encourage the children to ask questions, to analyse and interpret the data, and to stimulate further graphical or statistical work.

Investigations
In some primary schools the teachers encourage the children, through investigatory work, to look for patterns, to conjecture, to test theories and draw generalized conclusions. It is not easy for primary teachers to find appropriate source material, but computer programs exist which enable the teacher and children together to undertake an investigation. Some like TILES, DIAGONAL or ERGO are fairly well structured, but are nevertheless easy for inexperienced teachers to use. Some, like ASPIR or SNOOK, allow very free, open-ended investigation.

There would, therefore, already appear to be a range of computer material capable of helping primary teachers develop and maintain the balance suggested by the Cockcroft report in the children's mathematical work. Some of the software links directly to work that is already going on. The infants' teacher introducing the children to subtraction has at her disposal DIFFER and PARTIT to help explain what is happening. JANE and BARSET to encourage questioning and the use of language, SNAP and CHANGE, to provide re-inforcing activities through games. However, in the case of other programs, like the

investigations, the links with what is going on at the moment in the primary classroom may be somewhat less evident.

Perhaps all that is needed now is an adequate in-service training programme to give primary teachers opportunities to look at software and consider its possibilities, to help them develop criteria for judging the quality of the software, and to encourage them to have the confidence to use the best of it in school.

Anita Straker is at present seconded from her post as mathematics adviser for Wiltshire in order to lead the MEP Primary Project.

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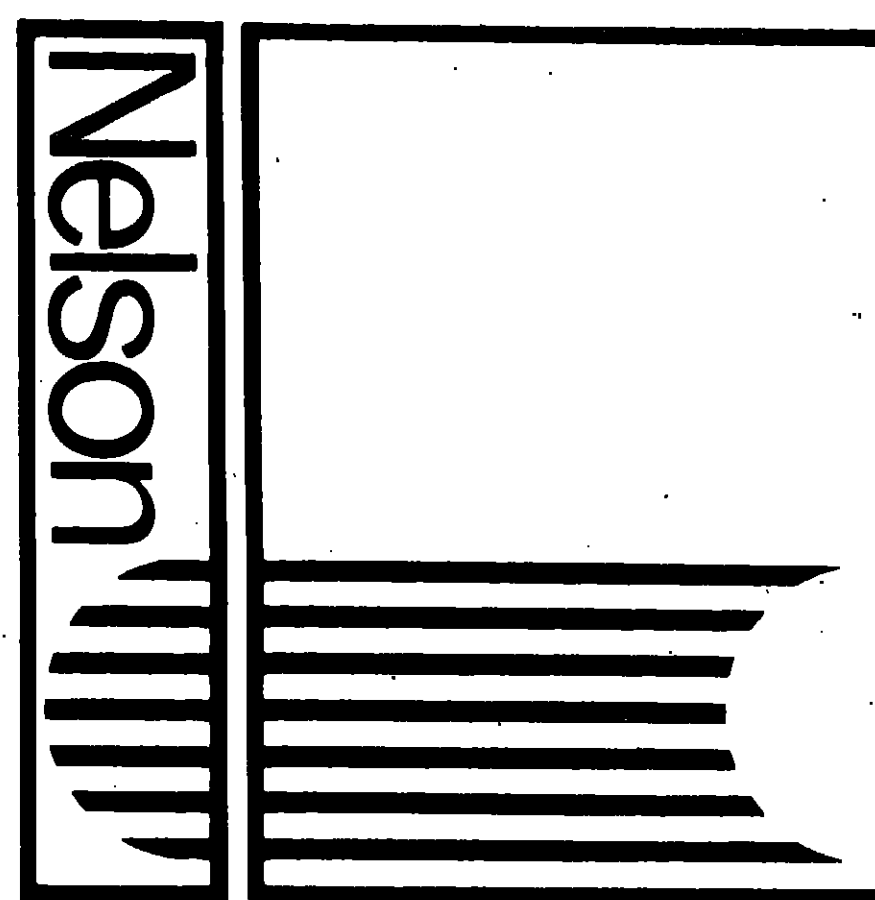
Software
All the software referred to in this article is available for the BBC micro, although in some cases, there are in addition versions for the 3802 or 4802 micros, or for the Spectrum. Programs are by various authors, and copyright is held by several different agencies.

ASPIR, PIRATES, SNOOK, SUBGAME and TABCAR are part of a pack called Micros in the Mathematics Classroom, published by Longman, Durrant Mill, Harlow, Essex.
BURGLAR, BARSET, AIRTEMP, COUNTERS, OOPS, JANE and SEEK are part of a five-module pack called Micros in the Primary Curriculum, being published by Longman.

FACTFILE is a primary school database program, from Cambridge University Press. An extension, PICFILE, which allows graphs to be drawn, will be published later this year.
CRASH, SHOPPING, BUILD, EUREKA, ERGO, LITTER, FARMER and WATCHPERSON are part of the software packs in the MEP Micro-Primer series. Primary schools ordering a micro through the Department of Industry scheme will automatically receive copies. Additional copies can be obtained from Tecon Ltd, 5 Granby Street, Loughborough, Leicestershire.

GLASS, ANGLES, ADDING, COUNT, MTALK, REVERSE, TEN, DIFFER, PARTIT, SNAP, HALVING, TILES, DIAGONAL, and CHANGE can all be obtained for only the cost of the tape or disk from the MUSE Software Library. The MUSE Information Office is at Westhill College, Westley Park Road, Selly Oak, Birmingham.
There are several versions of LOGO, a simple turtle-type graphics version for the BBC micro is sold by Computer Concepts, 16 Wayside, Chippingworth, Leicestershire.

CANDYLOSS is supplied by IJK Software, 55 Fitzroy Road, Bishopclee, Lancs.
MARY ROSE and TREASURE ISLAND are published by Ginn, Prebend House, Parsons' Fee, Aylesbury Bucks, Buckinghamshire.
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EXTRA

Applied statistics: a new challenge

By Gordon Skipworth and Charles Plumpton

Judging by the number of candidates entering for the CSE, O, Alternative Ordinary and A level papers in statistics offered by the CSE and GCE examination boards, many schools run statistics courses for their pupils and the teaching of statistics is becoming more and more popular.

Despite syllabus changes which have been made during the past two decades, much of the material examined in statistics has remained unaltered and the style and demands of the papers have changed very little.

However, professional statisticians, particularly those in universities, have become increasingly critical of the style of question found in the traditional statistics examination. In effect, almost every question instructed the candidate to perform some calculation, give a numerical answer without qualification of the method or model used, and then proceed to the next question.

Professional statisticians often disagree on the models suggested by the examiner and universally emphasize the almost complete failure to require candidates to justify their calculation or interpret numerical results. Fundamentally, statistics is a very demanding subject and a successful solution of a real-life problem requires considerable experience and insight, perhaps even beyond that of examiners who have been trained as mathematicians but not as statisticians. Indeed, differences of opinion, concerning the correct solutions of GCE statistics questions, abound among the experts. They do, however, agree that changes in school-taught statistics are essential.

To meet these points, in June 1982, the University of London GCE board

introduced a new syllabus in Applied Statistics at Alternative Ordinary level and withdrew its traditional Alternative Ordinary statistics paper. This new syllabus is designed to assist a student in the understanding and interpretation of the statistical data encountered in contemporary society. Students who have followed an O level mathematics course, but not necessarily obtained a Grade C or above, should have sufficient background knowledge to follow the course. It is intended that the syllabus should be treated in such a way as to develop the capacity to assess numerical evidence by students studying subjects which may or may not include mathematics at A level.

The examination consists of one three-hour written paper containing one compulsory question, requiring comment on tabulated data, and seven other questions from which candidates are required to answer four. The syllabus covers much of the material examined hitherto elsewhere and is briefly summarized under the following headings.

Sampling and experimental design
Surveys, censuses, representative samples, sampling methods, role of "controls", comparability, elimination of bias and reduction of residual variation.

Presentation
Tabulation and pictorial representation, treated from the point of view of the purpose to be served by a given format.

Measures of Central Tendency and Dispersion

Measures to be treated from the point of view of summary statistics (mean and variance, for example) for particular purposes in the context of real data, where real purposes are

demonstrably served. The measures are to be discussed in relation to the shape of the frequency distribution. The idea of the normal distribution and use of tables as a graduation technique—95 per cent of distribution lies within ± 2 standard deviations.

Information and Comparison
Standard error of sample means, standard error of difference of two means, significance of differences which exceed two standard errors. Measures of association and relationship.

Regression lines and formulae, correlation, discussion of the connexion between statistical and causal independence and the coefficient r^2 as a measure of dependence.

The importance of this new examination lies not only in its syllabus content but also in its demands on the candidate in relation to that content. No longer is the requirement simply that of performing calculations, underlining the answer and moving on to the next question. It is now essential to justify the calculations and attempt to interpret the results. The combination of calculation and meaningful interpretation is a requirement for the award of an O level Grade A, whereas the ability to calculate without justification and interpretation is unlikely to lead to anything higher than the award of an O level Grade C.

The first entry of candidates, in June 1982, responded well to the aims of the new syllabus. Of course the introduction of a new examination is an anxious time for both examiner and candidate alike, with both worrying about the other's expectations. Applied statistics was no exception. However, the overall performance of the first entry was encouraging and it is to be hoped that



Vital statistics?

the number of candidates entering for the examination will increase and that the syllabus will attract students whose main subject interest is not mathematics. With statistical methods now being used in a wide range of disciplines, the time is right for students studying A level geography, economics, biology, history, etc. to be exposed to these methods and this new examination might well be an instrument for measuring the success of such exposure.

Statistics in schools should be clearly designated as an experimental subject, with coursework as an important requirement. For over a decade the University of London GCE board's A level subject, pure mathematics with statistics, has emphasized the need for students to undertake projects in statistical work. Perhaps, in accordance with the report of the Cockcroft committee, this should apply to all statistics now being taught in schools.

Mr Skipworth is Chief Examiner in Alternative Ordinary level Applied Statistics and Dr Plumpton is moderator for mathematics for the University of London GCE board, but any view expressed are their own.

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by Michael Holt & Andrew Rothery

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Read all about it

There is no "best buy" among the professional periodicals. Francis Kellaway takes an objective look and finds they all have something useful to offer

This is an appropriate time of year to draw the attention of newly-hired mathematics teachers to one form of support that may prove invaluable to them as their careers develop. Unhappily there are many who have seen years of service and who are apparently unaware of the information available to them in publications of the various professional associations.

Let us then take an objective look at the periodicals and other material issued from the Mathematical Association, the Association of Teachers of Mathematics, and the Institute of Mathematics and its Applications.

First, historically, there is the *Mathematical Gazette*. Founded in 1871, it publishes a number of periodicals and many reports. Members get most of these as part of the services provided by their subscription, and all are on general sale.

The *Mathematical Gazette* has an outstanding reputation, gained through the skills of a noteworthy series of editors and the quality of its contributors. Issued quarterly, it contains articles, notes and book reviews encompassing the whole range of mathematics teaching. It is true that for many decades the emphasis was on grammar school and early university work. Even so, successive editors never neglected other facets of teaching.

The original aims of the *Gazette*, when it was established in 1871, were to provide a vehicle of communication between members, especially where methods of teaching were concerned; and to disseminate news of discussions, meetings and reports of work in committees.

This moves on. Number 400 of the *Gazette* appeared in 1973. As the editor emphasized, there was then a very different educational and mathematical scene from that which numbers 300 was celebrating. In 1948 (Socialism, too, were almost unrecognizable by a generation of teachers familiar with a pre-war era).

The number studying mathematics at all levels was enormously greater; teachers' qualifications and quality

tively, were of a different order; the range of courses involving mathematics had expanded, and the content of those courses was in constant ferment.

So the policy of the *Gazette* was to make the teacher's work more effective. However, there were many who, wrongly, that much of the content of the *Gazette* was of little relevance to their classes. The Mathematical Association, sensitive to this and aware that in the changing times teachers more than ever needed reinforcing resources, had inaugurated a second journal, *Mathematics in School*.

This, firmly classroom-based, is of direct appeal to teachers in primary and secondary schools. The bulk of its material is of explicit help to those dealing with children of average (or even less than average) mathematical ability. It recognizes that many teachers of the subject may not be specialist mathematicians; it accepts also that this is an age of the calculator and the computer.

The unhappy thing is that so many teachers who could benefit from a regular study of *Mathematics in School* do not do so. Even worse, they do not subscribe either to the equally meritorious publications of the Association of Teachers of Mathematics, in particular the quarterly *Mathematics Teaching*.

The ATM was founded in 1952 by teachers who felt that new methods were called for if an essential reform of school mathematics teaching was to be achieved. The association "works for changes in mathematical education which will relate it more closely to the powers and needs of children, and to the nature of mathematics as it is understood at the present time."

These aims are reflected in *Mathematics Teaching*, and in a splendid range of ancillary matter. Dealing with activities, discussion topics, classroom techniques and the like in appropriate, purposeful fashion, they represent an essential concomitant of every teacher's armoury. There is inspiration for those dealing with any ability or age-range.

Perhaps, number blocks, mental

arithmetic, microcomputers, curriculum planning, paper-folding, and probability are a tiny sample of topics recently dealt with, always with practical classroom conditions in mind.

Real-life mathematics dominates a further, relatively new journal. The Institute of Mathematics and its Applications has, from its inception, issued series of journals which rapidly achieved an international reputation. Although some of these concentrated on papers of high academic content, the *IMA Bulletin* has from the start contained much of interest and value to the average teacher. Six issues a year build into a reference library of resources that should be in every school.

In 1982 IMA introduced a periodical to promote the study of applications in mathematics, especially as related to the modelling process. *Teaching Mathematics and its Applications* has in its first few issues, considered, among much else, the monitoring of a car's petrol consumption, and the mathematics of rowing, voting systems, building society investments, lampshade covers and cranes. As the author of the last-mentioned article says, "mathematics is all around us; it is all a matter of seeing it."

The objectives of all the journals detailed include providing assistance to teachers that will help them, and their pupils, appreciate mathematics and its relevance. The Cockcroft report's recommendations which undoubtedly have been greatly influenced by the views of the MA, ATM and IMA gain frequent reference in the articles. The recommendations would achieve a speedier and more effective implementation if every mathematics teacher regularly read at least one of the periodicals.

There is no "best buy" among them. Teachers have individual needs, but all can be helped by material selected from the cornucopia available. Further information from the ATM, Kings Chambers, Queen Street, Derby, the MA, 259, London Road, Leicester, and the IMA, Maitland House, Warburton Square, Southend-on-Sea.

14 October 1983 No. 20

smp news

In this issue:

'New Books' complete,
Assessment for
low attainers,
Examination news,
Contest details,
SMP learning
aids

SMP 11-16

From the reviews...

ILEA Contact

That this preliminary review now considers two fundamental objectives appear to have shaped the structure and character of the scheme. Reflecting an increasing awareness that children of age eleven require a wide range of progression in mathematics (see Cockcroft's 'Seven Year Gap') is the stated intention that the material should vary considerably from pupil to pupil. Although this is a generally accepted requirement of any mixed-ability organization, there is a growing realisation that streaming/setting does not totally obviate this need. So it is that while some children are expected to 'by-pass' level 1 material and concentrate their attention on levels 2, 3 and 4 and accompanying extension material, it is panyping extension material, it is accepted that others will hardly have completed level 2 by the end of their second year.

Alongside the flexible structure that such an objective imposes is the refreshing emphasis on context, purpose and concrete example.

Partially hidden pictures are used most effectively to illustrate early concepts in whole numbers and fractions. Maps and photographs of the same location are cleverly combined and compared in one of the 'Space' booklets, and in a later 'Algebra' booklet the relationship between the numbers of footmen and horses accompanying a Queen's coach offers an excellent approach to formula construction.

For a period during the same period the Cockcroft Committee were collecting evidence it is interesting to note how closely SMP 11-16 mirrors many of the recommendations of their report. There is the variation in pace and extent of syllabus coverage already mentioned, facility for individual and group work as well as class teaching, the relating of mathematics to other areas of the curriculum, practical work, games and puzzles where these are likely to reinforce understanding, an acceptance of the electronic calculator as a legitimate computational aid, and inclusion of investigational material yet to be published.

The Times Educational Supplement

The booklets are extremely well designed, with a skilful blend of diagrams, photographs, line-drawings and tables and graphs. The scheme does not involve extensive practical work. However it does present mathematics in a visible and "tangible" form. Some of the work shows mathematics in context: lengths of fish are compared, or the areas of different parts of a flag. Other parts contain more "pure" mathematics. In both cases the use of visual material makes the mathematics less abstract. Another noticeable feature of the booklets is the constant reference to relate to situations which show people doing things, or thinking things out. The series presents maths as a warm, friendly - almost human activity.

SMP 11-16 will provide a booklet-based scheme for the first two years in a secondary school. It will use a book-based scheme for the next three years. Levels 1 and 2, now published, constitute the first part of the booklet scheme. Level 3, already mentioned, facility for individual and group work as well as class teaching, the relating of mathematics to other areas of the curriculum, practical work, games and puzzles where these are likely to reinforce understanding, an acceptance of the electronic calculator as a legitimate computational aid, and inclusion of investigational material yet to be published.

that have piloted the new material will lead sessions on putting the new teaching ideas into practice, and on organising the course within a department. And for teachers who want to know 'where SMP 11-16 is going' the material for years 3, 4 and 5 will be available in its draft version for discussion and an outline of its structure will be provided.

As well as these, a number of local courses, many of them one-day events, will take place throughout the academic year. For full details contact the SMP office (see below).

Addresses
Cambridge University Press
The Edinburgh Building
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SMP Office
Westfield College
Kidderpore Avenue
London NW3 7ST
Phone 01-435 7141

and copies may be obtained free of charge from Cambridge University Press and from the SMP office.

Two Easter courses

For teachers in schools already using SMP 11-16, and others who want to find out at first hand about this exciting new venture, the SMP has planned two major residential courses around Easter next year. One will be held at Wentworth Castle between Sheffield and Barnsley and the other in Bristol. In addition a centrally located residential course will be held towards the end of the summer holidays. A one-day non-residential course in Birmingham in early March will be open to teachers countrywide.

At each of these courses SMP 11-16 authors and teachers from schools

This term, hundreds of schools up and down the country, have begun using SMP 11-16 with their 11 year old pupils. The material for the first two years is booklet-based and is arranged in four 'levels'. The first two levels were published by Cambridge University Press early this year. Level 3 will be published in November and level 4 early next year. Material for years 3, 4 and 5 is book-based and will be published to keep pace with 11 year olds starting the five year course this term. A new brochure will shortly be available entitled SMP 11-16: a practical guide for the mathematics department. It contains full details (including prices) of all the material for the first two years. It provides suggestions about departmental and classroom organisation, storing the materials and guiding and monitoring pupils' work. The brochure will be available shortly

Living up to HMI praise

Staff at Coombe Dean School near Plymouth are still a little dazed from the wealth of newspaper coverage which followed publication of a glowing report on the school by HMI. Dubbed 'the best comprehensive in the country' by the Daily Mail, the school was praised by HMI for its pleasant atmosphere, the high expectations staff have of their pupils, the high quality of work by all abilities and its 'notably good' exam results.

Pilot connection

The SMP's connection with the school is through the pilot version of SMP 11-16 which Coombe Dean have been testing since 1980. Mathematics was one of three subject areas singled out for special praise by the inspectors, though head of mathematics Alan Mago is quick to point out that at the time of the inspection the SMP 11-16 course had reached no further than the third form. But the HMI assigned to us showed great interest in the work on the new material, he said. And what impact had all this publicity on him and his colleagues? Apart from the extra demand for places at the school - which affects all of us - we've had a lot of people wanting to look round the maths department, both because of the report and because the new course is being used here.



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SMP aid selected for Design Centre

A simple learning aid devised to help children use and understand angles has been selected this year by the Design Council for their list of well-made British products and features in a special exhibition at the London and Glasgow Design Centres. The SMP Angle Measurer has been developed by the SMP as a result of concern from teachers about the difficulties many children have with the traditional 'half-moon' protractor. The device is one of several inexpensive learning aids developed to accompany SMP 11-16, but this one has a place in any maths classroom, whatever course is being followed, as well as in such subjects as science and geography where elementary angle measurement may be a problem.

The SMP Angle Measurer is available now and, like all the SMP 11-16 learning aids can be ordered through usual school book suppliers (in the event of difficulty contact Cambridge University Press). The ISBN is 0521 25435 3 and the price for a pack of 5 is £2.25 + VAT.

The other SMP 11-16 learning aids include stencils, packs of cards for mathematical games and a scale for measuring percentage pie charts directly, without use of degrees. Full details are given in the brochure *SMP 11-16: a practical guide for the mathematics department*. The exhibition 'New to the Design Centre' continues at the Glasgow Design Centre until 5 November.

Right: bearings provide just one example of elementary angle work where the SMP Angle Measurer's 360 degree construction is particularly helpful.

Below: these 'machine game' cards are linked to a booklet in the first year material. Playing the machine game is the starting point for some simple algebraic work but also provides plenty of practice in mental arithmetic.



Recently published

SMP 7-13: Revised edition of Unit 1

Revision of Unit 1 is now complete and the details of materials now available are given below.

Complete Revised Unit £70.00

25888 5
This consists of the existing Unit 1 together with the revised cards, revised Teacher's Handbooks, and revised Record Sheets.

Revised Cards £12.50

25065 X
The complete set of 121 cards which have been revised.

Revised Teacher's Handbook £1.80

27744 2
This takes into account the changes in the cards.

Revised Answer Book £1.75

27743 4
Gives answers to the revised cards and the cards which have remained unchanged.

Revised Record Sheets £1.50

25870 7
These pads of Assessment Tests have been completely revised, and expanded, and divided up according to the section of Unit 1 to which they apply. The test for each section is now nine pages long, which is the same as the original length, and each pad contains 40 copies, ample provision for a class.

Assessment Tests Section 1 £3.25

Assessment Tests Section 2 £3.25

Assessment Tests Section 3 £3.25

26100 7
These pads of Assessment Tests have been completely revised, and expanded, and divided up according to the section of Unit 1 to which they apply. The test for each section is now nine pages long, which is the same as the original length, and each pad contains 40 copies, ample provision for a class.

Record Sheets for Section 1 Assessment Tests £1.50

Record Sheets for Section 2 Assessment Tests £1.50

Record Sheets for Section 3 Assessment Tests £1.50

26097 3
As a new service to teachers we are providing tear-off pads of Record Sheets for each Assessment Test.

Revision of the existing SMP books

New Book 5 is now published and completes the series of five shorter books which form a revision of the original SMP Books 3, 4 and 5. New Book 5 comes in a single volume, unlike New Book 3 and New Book 4 which each come in two parts. Through-put, the revised series, the electronic calculator, the revised cards, the revised Teacher's Handbooks, and the revised Record Sheets, are also included in the course. As with other books in the series, each chapter contains carefully graded exercises and there is regular revision material. The new books can be used to follow SMP Books 1 and 2, or other courses. The five books are designed for the SMP O-level course but, like their predecessors, they are suitable for pupils who are preparing for other GCE O-level examinations. The teacher's guide to New Book 3 (both parts) will very shortly be available.

New Book 5 £3.95

27571 7

Teacher's guide to New Book 3 £5.50

27208 4

Individualised Mathematics

The publication of *Further Algebra and Computation* and *Geometry 3: Three Dimensions* means that, except for two revision books, SMP Individualised Mathematics is now complete. This series of books is based upon the content of SMP Books 1 to 5 and Books A to G, X, Y, Z, and presents the material in programmed form on a topic-by-topic basis. This makes the course particularly useful for students working alone or catching up on work missed.

A full list of titles is available from: Cambridge University Press.

Further Algebra and Computation £2.95

27265 3

Geometry 3: Three Dimensions £2.95

27118 5

Railway gradients

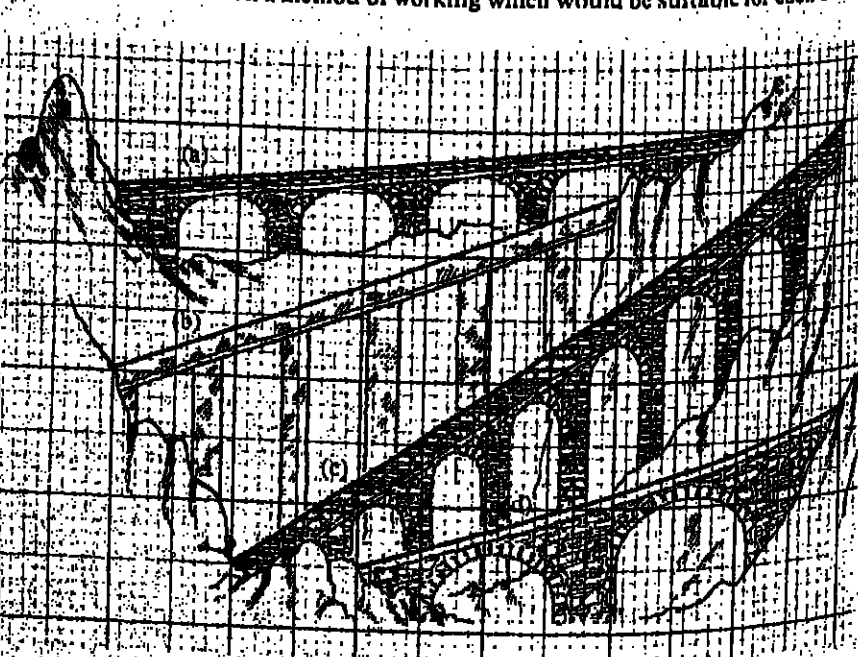
If a hill on a railway line is too steep, the engine's wheels will slip on the rails. The steepest gradient an ordinary engine can cope with is 0.09.

Mountain railways sometimes use the 'rack and pinion' system. A toothed wheel (the pinion) on the engine runs along a toothed rail (the rack). By this method the gradient can go up to 0.125. If there is only a single car, the gradient can be up to 0.5.

In a funicular railway, the car is fixed to a cable which pulls it up the hill. The steepest funicular railway has a gradient of 0.89. This information is summarised in the table below.

Method of working	Maximum gradient
Ordinary	0.09
Rack and pinion (train)	0.125
Rack and pinion (single car)	0.5
Funicular	0.89

B5: Find the gradient of each of these railways, to 2 decimal places. Write down a method of working which would be suitable for each one.



SMP 11-16 prices held

SMP 11-16 is no more expensive than other courses for pupils of this age, and provides much more material and greater flexibility.

And Cambridge University Press have taken two decisions which, compared with most other courses, now make SMP 11-16 an even bigger bargain. First, the prices of booklets in levels 1 and 2, which were published earlier this year, will be held at their 1983 levels throughout 1984. Secondly, the forthcoming level 3 booklets will be priced as for levels 1 and 2.

Individual needs

Since schools can order the separate components of the course in quantities which meet their individual needs it is difficult to give an overall figure for cost which could simply be applied to any school. But a comprehensive school following the guidelines for a 'basic provision' of the pupils' materials given in SMP 11-16: a practical guide for the mathematics department would spend, per child in the intake, about £1.80 on level 1, £2.80 on level 2 and £2.80 on level 3; these figures include booklets, answer books, review books and the learning aids devised as part of the course.

Below left: a page on gradients from one of the draft SMP 11-16 books designed for the top 25 to 30 per cent of the third year ability range.

Below: a page from a book in the draft Green series, for third year pupils.

SMP 11-16

Assessing pupils on the Green series

The last issue of SMP News described how, from the third year onwards, the draft version of SMP 11-16 splits into three parallel series of books, each catering for a different band of ability. The 'Green series' is designed for pupils who are not in the top 60 per cent of the ability range and, as such, are outside the official scope of public examinations at 16 plus. The content of the Green series corresponds closely to the Cockcroft 'foundation list'. Here, Spencer Instone and John Hersee describe the scheme of assessment which has been set up for such pupils in the schools testing the draft version of the Green series, and the DES-commissioned study which will look closely at the working of the scheme.

In developing a system of assessment for pupils using the draft Green series we have aimed to produce something not only informative to teachers, parents and potential employers, but both informative and motivating to the pupils themselves. We wanted, too, an assessment which did not take place in one 'big bang' at the end of the fifth year but which would continue throughout years 4 and 5. The Oxford and Cambridge Schools Examination Board,

acting on behalf of the COSSEC (Cambridge, Oxford and Southern School Examinations Council) group of boards have agreed to certificate such a scheme. This means that pupils following the Green series will be able to gain qualifications which have the authority of an established examining body behind them. Pupils will be able to gain a certificate to be awarded at the end of their fifth year, but leading up to this there will also be the opportunity for them to have their mathematical achievement recorded at three stages at any time during their fourth and fifth years.

The materials we have provided in the Green series come in a variety of forms - books, booklets, games, puzzles and investigations on cards, as well as suggestions in the teacher's guide for further practical and mental work and discussion. This is because we think variety is essential to maintain interest. The assessment also comes in a variety of forms. This is partly to maintain interest, but also to reflect the very varied mathematical skills which we believe pupils need and which should therefore be tested in any assessment scheme.

We also believe it important that pupils should feel that the assessment is simply an extension of their everyday work. For that reason its format and the general atmosphere that surrounds it should not be too different from a normal lesson (if there is such a thing as a 'normal' lesson!). So, for example, assessment items can in general be repeated if a pupil wishes, and calculation for their not being allowed. We think it important that in the assessment pupils are showing what they do know, and not being shown up for what they do not know. Consequently a high percentage mark is expected for success to be recorded. The difficulty of the assessment is, we hope, pitched at a level which will allow pupils to gain these high percentages.

The scheme of assessment has five components. 1 A series of written tests called 'Recaps'. Each Recap will be based on about half a term's work, as found in the fourth and fifth year course material, together with two extra Recaps which sample the third year material.

2 A series of mental tests. Each test will be given to a whole class and will contain questions based on the contents of one term's material, along with other simple mental mathematics questions.

3 A number of practical tests. The practical tests are designed to test whether a pupil can apply his or her mathematical skills in a very simple situation. Practical testing will take place from after Christmas in a pupil's fourth year.

4 A mathematics oral - a short interview towards the end of the fifth year, probably conducted by the pupil's own teacher.

5 We shall be providing a number of 'topic booklets' in the fourth and fifth years, which pupils may select according to their interests. The assessment certificate will contain a summary of those topic booklets which a pupil has successfully completed.

So far as it is possible, the assessment certificate will present the pupil's achievement in profile form. In particular the contents of the Recaps will be broken down into four separate areas of mathematics. Success by a pupil in each of these four areas will be recorded at three different stages, each assessment stage corresponding to a stage in the teaching material. These same stages will be used in recording the pupil's success on the mental tests.

As soon as a pupil has achieved success on (say) stage 1 of the four separate areas and

on stage 1 of the mental tests, a record of achievement at stage 1 may be awarded to him or her, thus providing an intermediate record and (we hope) motivator. The pupil's records of achievement will be incorporated in his or her final certificate.

One of three studies

The assessment of pupils using the SMP 11-16 Green series is the basis of one of three studies commissioned by the Department of Education and Science to look into the mathematics curriculum for low-attaining pupils, following recommendations of the Cockcroft report.

The studies are concerned with the development of a curriculum based on the 'foundation list' and with the feasibility of a system of graduated assessments in mathematics, and all three will run for three years from 1983-86. The other two studies are being undertaken by the West Sussex Institute of Higher Education, where a team will work with a group of schools examining teaching materials that are already available to see how they can be used in the ways recommended by Cockcroft, and by the National Foundation for Educational Research which is studying the feasibility of graduated testing, basing its work on existing tests and the work of the Assessment of Performance Unit.

The study building on the SMP 11-16 Green series and its assessment has four phases: college and school studies, pilot boards, represented by the Oxford and Cambridge Board. Hence the study's title: SSCC Graduated Assessment in Mathematics.

As explained above, the Oxford and Cambridge Board is providing certification for pupils following the draft version of the Green series. DES funds have enabled each of the other partners to appoint an extra member of staff to work on the SSCC study.

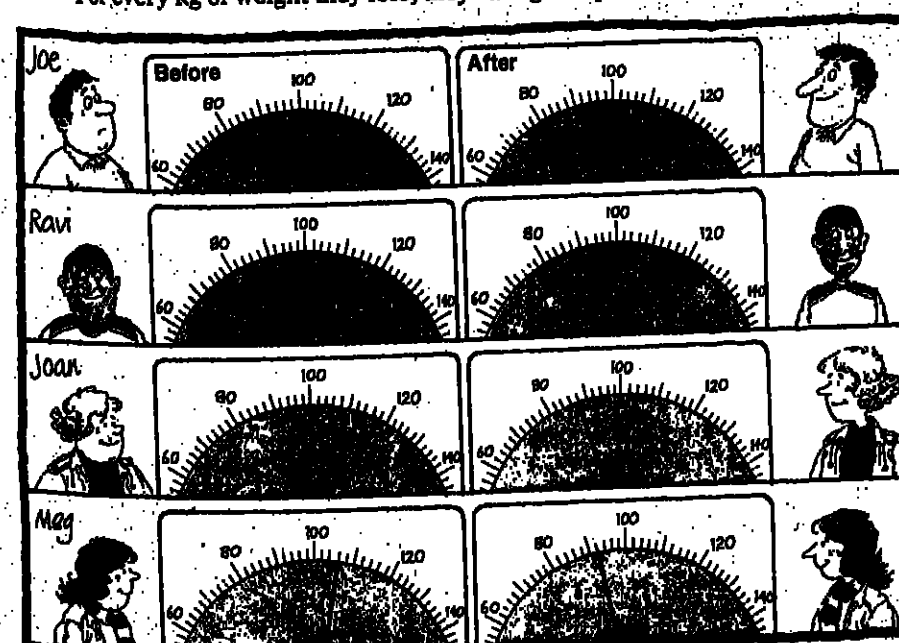
Sylvia Johnson has been appointed to the SMP and her task includes revising, developing and extending the range of assessment methods and items which may be used by schools following the Green series (she is also responsible for liaison with the other two commissioned studies). Suffolk County Council has appointed Robert McBride. He has two main tasks: on the one hand he will visit the Green series pilot schools, both in Suffolk and elsewhere to see the Green series in action, thus providing the teachers in these schools with more support and reporting back to the SMP 11-16 team on the success of the tests; in addition, he will maintain contact with a number of schools in Suffolk where the feasibility of using the Green series assessment, or rather developments of it, but not the teaching materials themselves, will be investigated. One aim of this part of the SSCC study is to try to ensure that the Green series approach to assessment is 'valid' - that is, it does test the underlying mathematical ideas of the curriculum; another is to investigate how schools can respond to a system of graduated assessment - how it affects the curriculum, both in content and in teaching methods.

Dr Margaret Brown at Chelsea College will be responsible for overall evaluation within the study. Gill Closs has been appointed there to undertake this evaluation, considering both the schools which are, and those which are not using the teaching materials.

Further information about the SSCC study can be obtained from either of the Joint Directors: Peter Reynolds of Suffolk County Council and John Hersee of the SMP.

D The sponsored slim

Joe, Ravi, Joan and Meg enter a sponsored slim. For every kg of weight they lose, they each get 20p.



D1 Copy and complete this table.

Name	Weight before	Weight after	Weight lost	Money raised
Joe	120 kg			
Ravi				
Joan				
Meg				

D2 (a) Who was lightest before the slim?
(b) Who was lightest after?
(c) Who was heaviest before the slim?
(d) Who was heaviest after?
(e) Who lost most weight?
(f) How much money did they raise altogether?

Examination news

O-level The two existing syllabuses, N and C, will be examined in June and November, 1984. For the June 1985 examination, and subsequently, only one SMP syllabus will be available. Schools have received a copy of this syllabus, which is presented in a syllabus-plus-notes format, together with specimen papers, from the Oxford and Cambridge Board. If you have not seen a copy and would like to, please write to the SMP office.

From summer 1984 onwards it is intended to give candidates more guidance on the degree of accuracy expected in answers. The following rubric will appear in all SMP O-level papers:

'In some questions the degree of accuracy required is stated. Where this is not done numerical answers should be given to an appropriate degree of accuracy. Numbers without units should be treated as exact. The examiners have provided the four examples shown on the right for the guidance of schools.'

Additional Mathematics The new syllabus, and the new format for the papers, come into operation for the June 1984 examination. Copies of the syllabus are available from the SMP office.

A-level For the 1984* examination the syllabus will include a few additional topics so that the agreed 'inter-board core' is covered. Schools were sent details a year ago. A group of teachers has now proposed some further changes in the syllabus, reducing its size, and these are now being considered by the Secondary Examinations Council. If the changes are approved quickly they will operate from the 1985 examination, since they do not involve any extension of the 1984 content. Schools will receive details in the near future.

*We apologise for the fact that this date was incorrectly given as 1985 in the last SMP News.

The British team to the 24th International Mathematical Olympiad (IMO) held in Paris this year was the first from this country which was not entirely male! Alison McDonald was awarded one of the three second prizes won by the team, which also collected a third prize. Paul Ballster won a special prize for an outstanding solution of one of the problems. Next year's IMO will probably be held in Czechoslovakia.

The National Mathematics Contest takes place on Tuesday, 28 February 1984. Many schools enter pupils for this competition which is suitable for able fifth and sixth form pupils. Full details of the competition and how to enter for it are available from The Mathematical Association, 269 London Road, Leicester LE2 3BE.

This national contest forms the first stage in the selection procedure for the IMO team. A British team will take part in the International Physics Olympiad for the first time next summer when it will be Sweden's turn to host this annual contest for pre-university physics students. The questions set to the teams usually have a mathematical rather than a qualitative flavour and are designed to stretch the imagination by combining topics in an unusual way. But the mathematics required does not usually include integral calculus and 40 per cent of the marks (as well as 50 per cent of the 10-hour time allocation) are given for practical work.

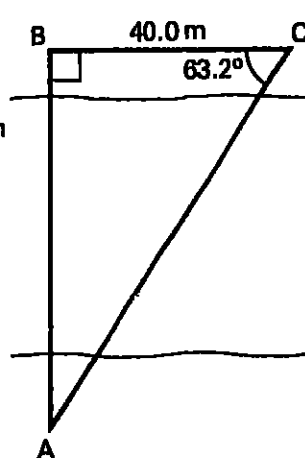
Selection of the British team is by means of a UK contest to be held on 8 March 1984, and consisting of written papers. Teachers of pupils who could tackle university entrance or difficult A-level physics questions should write for further details to Dr Cyril Isenberg, Department of Physics, University of Kent, Canterbury.

Examples

1

Question

To find the distance between two points A and B on opposite sides of a river, a surveyor takes the measurements shown on the diagram. Calculate the distance AB to the nearest metre.



Solution

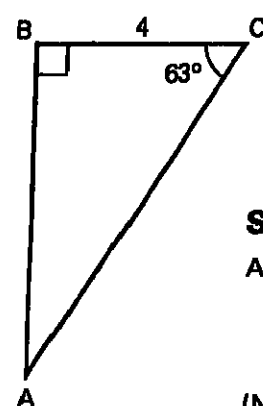
$$\begin{aligned} AB &= 40.0 \times \tan 63.2^\circ \\ &= 40.0 \times 1.98 \text{ (using tables)} \\ &= 79.2 \text{ m} \\ &= 79 \text{ m to nearest metre} \end{aligned}$$

(Note: either answer is acceptable if 'nearest metre' is not stated in the question.)

2

Question

Calculate AB.



Solution

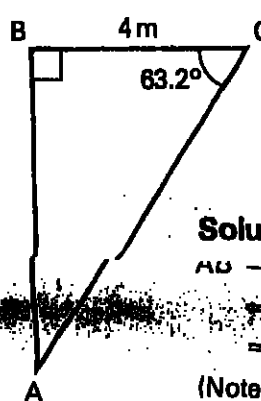
$$\begin{aligned} AB &= 4 \tan 63^\circ \\ &= 4 \times 1.96 \text{ (using tables)} \\ &= 7.84 \\ &= 7.8 \text{ (two s.f.)} \end{aligned}$$

(Note: 4 treated as exact)

3 (using calculator)

Question

Calculate AB, correct to three significant figures.



Solution

$$\begin{aligned} AB &= 4 \tan 63.2^\circ \\ &= 7.9186541 \\ &= 7.92 \text{ m} \end{aligned}$$

(Note: the measurement of 4 m has been treated as exact since required accuracy has been stated.)

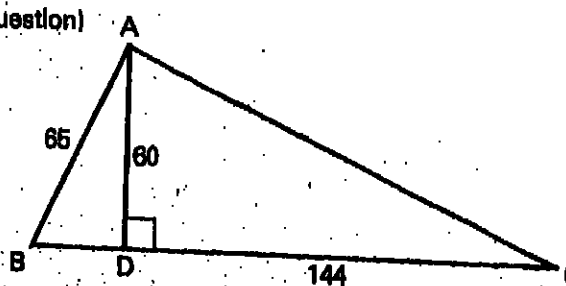
4

Question (part of a longer question)

Calculate exactly BD.

Solution

$$\begin{aligned} BD^2 &= AB^2 - AD^2 \\ &= 65^2 - 60^2 \\ &= 4225 - 3600 \\ &= 625 \\ BD &= 25 \end{aligned}$$



Publications in prospect

Pointers

A booklet for teachers of infants drawing attention to mathematical opportunities and classroom activities will be published early next year. Entitled *Pointers*, the booklet has been developed by a team of primary school teachers and edited by Pat Matthews; the text is fully illustrated, and links with Unit 1 of *SMP 7-13* are indicated.

Formulae and tables

In the day of the calculator it is no longer necessary to have available the extensive range of tables given in books of mathematical tables published for A-level use. A pocket booklet of mathematical formulae and statistical tables will be published next year providing A-level students with the necessary resources when a scientific calculator is in use. The booklet, which will also be of value to schools not using the SMP course, has been produced in collaboration with the Mathematics in Education and Industry (MEI) Project.

Investigations and stretchers

Developed to complement the first and second year work of *SMP 11-16*, *Investigations and stretchers* is a pack of material, which can be used with pupils of this age range, whether or not *SMP 11-16* has been adopted as the basis of the mathematics curriculum.

The pack comprises a teacher's handbook describing mathematical investigations suitable for use as whole-class activities in the first and second years and the 'stretchers', a collection of work cards with problems for more able pupils. An aim of all the material in the pack is to encourage the pupil to think in an independent way, rather than select 'the right method' from a collection of standard methods already learnt. The stretchers are intended to be interspersed among other work over a period of time: hints and solutions are included in the teacher's handbook.

Investigations and stretchers will be published early next year.

In-Service Resource Kits

Two new titles have been added to the SMP's range of In-Service Resource Kits. This series of kits provides resource material for in-service training sessions such as might be organised for a school mathematics department by the head of department or by a local adviser for a more widely drawn group of mathematics teachers.

The kits vary in size and in style, but contain multiple copies of material on possible classroom approaches to mathematical topics (not solely 'SMP' topics or 'SMP' approaches), research results on children's learning difficulties, offprints from relevant recent articles in mathematics education journals and, in some cases, practical activities for the teachers themselves. Each kit contains enough material for several one-hour sessions and includes a tutor's section.

Total brought to seven

The new titles are *3-D geometry and Seeds*, and they bring the total number of kits available to seven. *3-D geometry* is intended to help teachers develop activities and resources for three-dimensional work in mathematics. The emphasis is on practical activities by the teachers as a basis for similar work in the classroom. The kit contains suitable materials including cubes, modelling clay, glue, etc., and is packed in a stout cardboard box.

Seeds is a different kind of kit, comprising 20 A5 cards raising topics for discussion. Each card presents a problem or a situation with a number of talking points on the reverse side. The cards are designed to stimulate lively discussion, but, as the title suggests, they provide the starting points for deeper investigation and for curriculum development. The accompanying tutor's notes include reduced size facsimiles of all the cards.

The following SMP In-Service Resource Kits are available from the SMP office. Please send an official school order, or a cheque payable to the School Mathematics Project with your order.

Fractions	£4.50 + £1.20 p.p.
Directed numbers	£5.00 + £1.20 p.p.
Calculators	£4.00 + £1.20 p.p.
On being sure (proof)	£5.00 + £1.20 p.p.
The mathematics department	£5.50 + £1.20 p.p.
3-D geometry	£6.50 + £1.50 p.p.
Seeds	£2.00 including postage

International anniversary

The ICMI is 75. Geoffrey Howson traces its past, present and future

What is the safe minimum of Euclidean geometry, the calculus and mechanics?

What position should the secondary schools take with respect to the nature of applications and the relations of applied to pure mathematics?

What should be the relative nature of the courses in the secondary schools for those who do not intend to proceed to the universities, and for those who do intend to do so?

These questions, to which mathematicians still attempt to provide answers, were among those posed by the American educator, David Eugene Smith, when he spoke at the 1908 International Congress of Mathematicians held in Rome.

The early 1900s had seen many changes in mathematics teaching - in England, Euclid had been overthrown and replaced by Godfrey and Siddons,

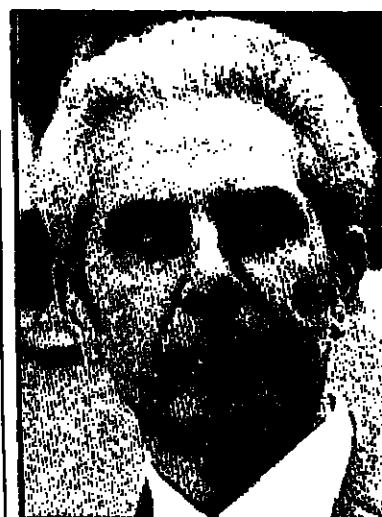
Hall and Stevens, and the like; calculus was becoming established in the sixth form; and, partly as a result of the efforts of John Perry, public schools such as Clifton and Winchester were establishing laboratories in which "practical mathematics" (mainly mechanics) could be taught.

Not only was mathematics teaching changing, but so was the clientele - again England provides an example with the establishment of state secondary (grammar) schools following the Education Act, 1902. As in the 1960s, similar reforms and expansion were occurring in other developed countries. Moreover, as was to happen later, there were doubts about the gains and losses which could be recorded.

Why not then, argued Smith, establish a commission which would study and compare the changes that had

taken place in the various countries, and see what experiences could be shared. Smith's call was heeded and the ICM established a body - the Commission internationale de l'enseignement mathématique (or in its modern anglicized form, the International Commission on Mathematical Instruction, ICMI) under the presidency of the great German mathematician, Felix Klein.

The visitor to the Mathematical Association's library at the University of Leicester will be left in no doubt about the seriousness with which the ICM approached its task, nor its diligence. Eighteen subcommittees prepared surveys, often in many volumes, of teaching practices in their countries and the result was outstanding both in terms of quantity and quality. Thus, for example, the French report ran to five volumes and that of



M. Jean-Pierre Kahane, Currently President of ICMI

the US to 11. The British contributed only two volumes, but the first of these had more than 600 pages. Certainly, nothing on the same scale had been attempted before, or has been attempted since.

Unfortunately, the production of these reports coincided with the out-

break of the First World War. They remain as monuments of industry and as rich sources for the historian, but regrettably they were never analysed in depth nor significantly acted upon. The war effectively put a stop to the commission's work and to the series of symposia and investigations it had launched on topics as varied as "The mathematical training of the physicist" and "The teaching of calculus in secondary schools".

Although the commission was revived in the inter-war years it never reached the same level of activity. Many of the 30-odd countries which had taken part before 1914 did so no longer, although there were some new countries, Czechoslovakia, Poland and Yugoslavia, to be welcomed into membership. The survey of the training of secondary school teachers and on contemporary trends in the teaching of mathematics - were carried out, but the commission's activities were a rather tired look.

In 1939 the commission lapsed into its second enforced coma, and it was not until 1952 that it resumed its activities as a sub-commission of the newly created International Mathematical Union.

Since then, educational systems throughout the world have expanded and mathematics education has been given even greater prominence. ICMI which now has 54 member countries drawn from every continent, still seeks through mutual cooperation to study and improve all aspects of mathematics education. It does this in a variety of ways: notably

- By holding four-yearly international congresses - that held in 1980 at Berkeley, US, was attended by some 2,000 members drawn from 100 different countries; the next will take place in Adelaide, Australia in August next year;
- By sponsoring regional meetings - for example, in Japan this month and in Thailand next May;
- By mounting symposia devoted to special topics - for example, a symposium on "What should be the goals and content of general mathematics".

● Through the work of affiliated groups - for example, the International Group for the Psychology of Mathematics Education holds annual meetings - the seventh was held in Israel in August;

● Through cooperation with other scientific unions - for example, the ICMI has recently cooperated with the Committee on the Teaching of Science of the International Council of Scientific Unions to produce a series of booklets intended to promote cooperation between science and mathematics teachers;

● Through the production of a six-monthly *Bulletin*;

● Through cooperation with UNESCO to provide volumes in the series *New Trends in Mathematics Teaching*.

In addition to these activities and in an attempt to consider problems more analytically and in greater depth, the ICMI is planning to embark on a series of "studies". The first of these, on "Mathematics, computers and computation" is already under way - an international planning committee has been appointed, with members from France, Japan, the Netherlands, Britain, the US and the Soviet Union, a first "discussion" document is planned for next spring and an international symposium in spring, 1985.

It is hoped to start work soon on three others: on current knowledge of cognition and of how teachers of mathematics might respond to this; on probable developments in education and the part within it that mathematics occupies which are likely to result from social and technological changes; and on mathematics as a service subject in higher education. The aim of such studies is not merely to give surveys of what is best in current practice or most up-to-date knowledge, but to provide frameworks within which national and regional discussion can take place.

We hope that local discussions and work will supply input for, and benefit from the output of, these studies. They will provide, therefore, opportunities both for participation and for the establishment of standards within a discipline which each year becomes more demanding and more important.

Dr Geoffrey Howson is director of the Centre for Mathematics Education at Southampton University, and secretary of the International Commission on Mathematical Instruction.

New in IMS

Three new mainstream courses in the

INTEGRATED MATHEMATICS SCHEME

Devised by PETER KANER

- * L - for lower attainers and Scottish Foundation level students
- * M - for CSE students and Scottish General level students
- * N - for GCE Students and Scottish Credit level students

- L - a new course for lower attainers
- * A new 3-book course written specifically for lower attainers who are below the level demanded by the CSE but who are undertaking a foundation level course.
- * Especially designed for this level, L₁ (the first book in the series) is carefully and simply laid out and printed in colour using photographs, illustrations and diagrams throughout.
- * The four main strands of mathematical material - revision and practice of basic skills - the teaching of basic mathematical concepts - applying these skills at home and at work - reinforcing the skills through puzzles and games

- M₁ and N₁ - the start of the CSE and GCE courses
- * As in the introductory course of IMS (already published), M₁ and N₁ have the same basic units to enable the teacher to postpone the decision about which examination a student should take as late as possible.
- * N₁, for GCE and Scottish examination students, contains extra skill in 2/3 of the units to cater for the additional needs at this level.
- * Both courses can be studied over a flexible period of two or three years. They each consist of three books - the third being, in both cases, a revision book.
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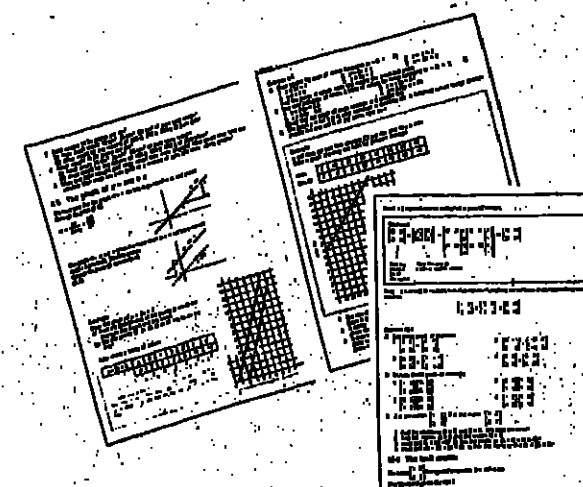
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What's the point in learning maths?

Asks Michael Wood

What is the point in learning maths these days? Can't computers and other electronic gadgets do the sort of routine operations which mathematics consists of so much more efficiently than human beings that it really is a waste of time teaching people to do mathematics?

I haven't often heard this argument in quite this form, which is odd because it seems to me to make a lot of sense. Cheap calculators can do long multiplications and long divisions, find square roots, and work out correlations and standard deviations. Micro-processors could easily solve most standard forms of equations, plot graphs and manipulate information in just about any way required. So why do we waste so much time throughout the education system teaching people to do badly what machines do so well, and making so many feel inadequate for being unable to do what they don't need to be able to do anyway?

The answer, I think, lies in a feeling that if they are going to use mathematical techniques, people must understand them, which means, so the argument goes, that a student - at any level - must be able to perform a mathematical technique before being allowed to use a machine instead.

This is a very strange argument, at first sight on a par with the idea of insisting that people should learn to run at 70 miles per hour before being allowed to travel on a train at this speed. But this perhaps is not quite a fair analogy because the newcomer to rail transport is not likely to have much difficulty appreciating what trains can be used for (although understanding how they work might be quite a different matter), whereas someone who has not met ideas like "division" or "correlation" before is not likely to have a clue what these concepts mean or what they can be used for. So isn't it

a good idea to teach people to use these concepts without electronic help so that they understand what they are all about?

My own view is that this line of reasoning has very serious flaws in it because it is based on an erroneous idea of exactly what it is necessary to understand. Suppose we are trying to teach someone about, for example, division - say one divided by 0.73. We could simply show them the standard paper and pencil method of doing the computation. In addition to this we might also explain, in mathematical terms, why this method works (or, on a more ambitious level, we might help them to an understanding of the mathematical structure of the situation and then invite them to work out their own method of doing the computation).

Some teachers of mathematics might say that a rote-learned method which the learner does not "understand" is sufficient, whereas others would say that, if the first step is to move the decimal point in each number two places to the right, the learner should understand the mathematical justification for this step. However, I would say that both sides have missed the most important issue.

In practice the only point in understanding and being able to "do" divi-

sion is to be able to use it in specific contexts. Suppose I take that one gallon of petrol will take me 73 per cent of the way to my destination and I want to know how many gallons I will need to get all the way there. The answer can be obtained by dividing one by 0.73, but many people (for example, me) have difficulty seeing that this is the appropriate computation. They do not understand enough about the concept of division for it to be obvious that "1 ÷ 0.73" will tell them the number of gallons I need, even though they might be able to perform the division computation and even know why - in mathematical terms - the method works.

I can see no reason whatever why getting people to practise performing division operations should be any more help to them in understanding what division means and how it can be used than getting them to do lots of divisions on a calculator. What they do need to understand is how the mathematical concept relates to real life situations. (To return to the railway analogy, the ability to run at 70 miles per hour is most unlikely to be any help in planning a route from Penzance to Inverness by train.)

To sum up briefly: when people learn a mathematical technique there are three things they can try to under-

stand - how to do it, why the technique works in mathematical terms, and what the answer means and how to use the technique in various different contexts. Microtechnology is fast reaching the stage where there will be no point in being able to perform most of the standard techniques and so very little point in understanding why they work.

What will still be essential is understanding what the answers mean, and in most cases the traditional method of mathematics teaching of getting students to perform routine operations is likely to be very little help in achieving this end. A calculator which will work out correlations is no use if you don't know what correlations are, but experience in working out correlations with the standard algebraic formula is actually very unhelpful to anyone without considerable mathematical insight simply because the formula is too complex to make much sense of.

I think this means that what is taught in school mathematics should change radically - particularly at the secondary level. (At a very elementary level I don't think the argument has the same force. It is difficult to envisage a child understanding what addition means without some experience of doing addition in the sense of putting two sets of objects together and counting up the total.) The emphasis will be

firmly on what answers mean, on the techniques that can be used, and on the problems that can be solved by using sub-routines (each of which can be performed by a microprocessor).

Pupils will no longer be called upon to do sums or to solve equations, or to decide which sums are appropriate, or to formulate equations, and to solve them. These tasks are trivial, as anyone who has had the task of teaching people how to formulate problems in mathematical terms, or how to interpret the meaning of a statistical significance test, will realize. In fact, these are probably the most difficult aspects of the practical mathematical reasoning: they are precisely those aspects which are difficult or impossible to translate into the type of routine algorithm which can be programmed into a microprocessor. Perhaps this is why these aspects are to be given such a low priority by mathematicians: they only by teaching what is sufficiently important to be programmed into a computer is this so, mathematics teachers are doomed to become redundant.

To be fair, I should perhaps point out that this article is based on a rather narrow view of mathematics. Some teachers undoubtedly do try to give their pupils the kind of flexible understanding of mathematical ideas which will not be rendered redundant by the computer revolution. On the other hand, the pressures of examination syllabuses, and the expectations of pupils, parents, employers, and society in general, mean that many teachers of mathematics concentrate on those aspects of mathematics which are not now of any real value.

Michael Wood is a lecturer in the Faculty of Education, Oxford Polytechnic.

Interface and integrate

THE TIMES EDUCATIONAL SUPPLEMENT 14.10.83

Interface Mathematics, by C Plumptre, O. M. Staley and H. M. Kenwood. Macmillan Education £1.95. 0 333 79779 8.

Essentials of Pure Mathematics, by J. R. Irwin. Edward Arnold £5.95. 0 7131 0551 8.

The first pair of books in a three-volume series bring together "all, or nearly all, the mainstream syllabuses of the various boards" for O level mathematics. Interface is one of those words from which there is no escape nowadays. It is, nevertheless, quite apt a patchwork of traditional and modern.

One of the two chief examiners for the London board who drafted a new, combined, syllabus. He explains the difficulties. "It would have been easy enough to draw up a list of all topics... but the result would have been far too long. Some topics had to be deleted and those which remained had to form the basis for a coherent and continuous scheme of work. The syllabus which was eventually worked out certainly did not please everybody; many topics cherished by 'modern' devotees did not appear, yet the traditionalists thought the syllabus too modern. However, in the end the

syllabus, despite significant variations, was a substantial common core. This core is the main constituent of books 1 and 2 of Mr Chapman's series. The third, in the main, comprises topics required by some boards but not by others.

The critical words in the quotation above are "coherent and continuous" and they form the basis of the arrangement of the chapters in both books. There is a sturdy attempt to bridge the gap between academic classroom mathematical abstractions and the real life processes of the outside world. As one instance, metric units are generally employed, but a travel exercise can evolve distances in miles and speeds in m.p.h.

The spirit of the books thus appears to be progressive rather than revolutionary. Future employers will doubtless over the school leavers talk glibly (though not necessarily with understanding) about sets or transformations but are incapable of adding or multiplying simple numbers or dealing with elementary monetary calculations. Both these have been the planks for years, and it is by no means clear in what way reorganized "mainstream" syllabuses will change matters.

The great thing is that new thinking has produced a set of textbooks that genuinely take a fresh approach to a difficult subject. The books are well written and produced, and carry abundant exercises. The teacher's books include answers to all the examples, and also give advice on the way topics, especially the less familiar, may be introduced and presented.

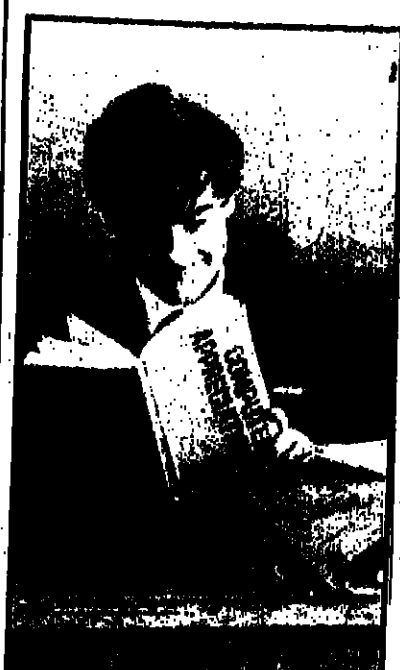
Equally attractive is a collection of problems and worked examples from Macmillan Mathematics - an integrated approach, but may be used independently. Completely appropriate for its purpose, it has the additional merit of a remarkably low price.

A compact text for A level, covering the pure mathematics context of single subject courses in mathematics or pure mathematics with statistics, is also praiseworthy. Mr Irwin's fluid text introduces new concepts most effectively; there are good illustrative examples, and graded exercises, and one gains the quality of production is noteworthy.

F. W. Kellaway

There is a new approach in Basic Mathematical Tables (Bell & Hyman 90p) compiled by Peter Kaner. Easily read multiplication tables give the products of any pair of numbers between 1 and 100, and there are explanations of their extension to cover fractions and three or four-figure numbers. Function tables deal with logarithms, trigonometric ratios, square roots, and reciprocals in clear, simple, unencumbered fashion.

F. W. Kellaway



Actual data

Where's the Maths in Print? £1.70. Maths About Town £1.75. By Bill Ridgway. Edward Arnold.

Each of these texts has been written as a pupil workbook containing 23 independent exercises based on given data. Each layout presents pupils with data on the left-hand page and related questions on the right-hand page. Each item of data is reproduced as an actual or facsimile copy of newspaper cuttings, menus, leaflets, maps and price lists.

Where's the Maths in Print? introduces the maths of travel via British Rail distance charts and fares tables. Working out costs involves looking at menus, price lists, car sales advertisements, insuring home contents at local rates. Weight gets a passing mention and washing machine load weights; time via a television programme guide; timetables via a local bus route; measurement via a map and a plan of a school. There is also some work based on a calendar, a newspaper article, hotel and "What's On" data, health and hygiene and weather graphs.

Maths About Town introduces weight through a personal weight chart; money through buying planning, playing in the park, shopping, flying, hiring items, eating out, travelling by train, measurement from a map and a plan; time at the swimming baths. There is also work based on newspaper items and a distance chart.

In both cases the introduction to the text is brief. The chapters are complete units which can be taken in any order, like the layout and are designed to be actual data being presented to the pupil. I would like to recommend these pupils in their final years of secondary education, but an unhelpful to do so. I feel the use of the word "Maths" in such titles is incorrect. Although time and time are contained within the accepted mathematics syllabus, there appearance in these texts are usually superficial incidental. In the main, pupils working through these texts will spend most of their time selecting the right numbers from the given data. The mathematics required of them once this has been done is completed is extremely limited, very basic and rarely exceeds addition, "differences" and doubling or halving. I feel that a great opportunity of showing pupils how "mathematics" is used in print has been missed. Perhaps titles should be replaced with "Numbers".

As for the finished texts, it is a pity that insufficient care at the proof-reading stage has resulted in right-then errors. The language used could cause difficulties for pupils. A phrase of a readability test score indicates that in each case the text presents passages with higher than average vocabulary difficulty.

As pupil workbooks each text leaves a lot to be desired. Had the authors replaced the pupils' questions with suggestions as to what mathematics was contained in or needed to produce the given data together with how this could be developed then the texts would make superb teacher resources.

Peter Cawthra

Inevitable necessity?

Charles Plumptre on electronic calculators in GCE examinations

During the past decade, GCE mathematics examiners and moderators have experienced increasing difficulties in resolving the setting and marking problems associated with the rapid development and increasing availability of portable electronic calculators. These difficulties have fallen under two main headings.

First, examiners have had to ensure that candidates with electronic calculators do not have unfair advantages over those who must use mathematical tables or slide rules for numerical work. Second, it has become almost impossible to avoid setting questions in which all the work can be done on the calculator, so that an able candidate could merely write down the answer without showing any method or intermediate steps. In this case, in

This would simplify some teaching at O level, for no longer would students be caught out by forgetting to subtract the difference columns in cosine and reciprocal tables, by using the wrong page for square roots or by fear of such horrors as $\frac{1}{2}(1.6842)$ when finding cube roots.

On the other hand the logarithmic function will first be met as the inverse of the exponential function (or vice versa) at a later stage. This is probably an advantage but may not necessarily be so. Further, students will be unfamiliar with the use of tables and simple iteration; this may lead to difficulties later on if, for example,

the better functions can be performed with realistic numbers rather than those especially made up to cancel nicely as is the case with many examples set in theoretical mechanics, where, for example $g = 9.8 = 7^2 \times 0.2$ has been a boon to examiners.

On the other hand, by judicious approximation, and the use of simple multiplication (and division) tables, students must be able to assess the order of magnitude of the answer to a given problem. Also, eight significant figures when the data is correct to, at most, three significant figures must be avoided. Third, approximation methods, eg iterations, can be performed with speed and accuracy which are impossible with the use of tables alone. However, numerical integration cannot be much improved in general, even if a programme for numerical integration is built into the calculator. Of course, much of the hard labour involved in determining statistical parameters can now be eliminated; the use of false means, etc, is hardly worth while, but the danger of misleading and unnecessary accuracy remains, indeed is increased.

The teaching time saved, when the use of calculators in classrooms and examinations becomes universal, can be spent on the topics recently introduced into the combined modern-traditional GCE syllabuses, in particular on more realistic problems and applications as advocated by the Cockcroft report. Manipulative skills are still needed in this age of the electronic calculator, but much of the arduous, dull and uninspiring slog of numerical calculations can be eliminated now, and the students' time spent on more interesting ideas and problems. Nevertheless, the need for accuracy is still fundamental and, without it, such creators of wealth as engineers would be in great difficulties.

Finally, this article has been restricted to a consideration of electronic calculators and has not examined the implications of the computer which are not being installed in most schools and colleges. Soon, the electronic calculator itself may be as obsolete in our schools as are now the abacus and, happily, slide rules and mathematical tables.

Dr. Plumptre is moderator in mathematics for the University of London GCE board, but any views expressed are his own.

"Please sir, why can't we do real sums?"

By Bill Ridgway

I well remember those interminable afternoons spent as a child in the neighbourhood primary school during which we seemed to do nothing but mechanical sums. Tons, hundredweights and quarters. For the more adventurous, tons, hundredweights, quarters, stones, pounds and ounces. Then there was length: six miles three furlongs two chains five yards two feet eight inches multiplied by 54.

Perhaps my memory serves me false. Maybe it wasn't quite as bad as that. It certainly felt like it at the time, however. The fiery slogans contained in the 1944 Education Act may have permeated a school or two here and there, but from where I sat the embers of Victorian arithmetic still cast a rosy glow.

As a child of 10 or thereabouts, it never occurred to me to question what we were told to do. It may not have occurred to our teacher to question what he asked us to do, either. Sums were sums. Like the man who climbed mountains, you did them because they were there.

By the time I went to grammar school I had learnt the rote well enough. I knew my tables, and how many pence made the pound. I was not sure how the knowledge I had gained would benefit me either in out-of-school hours or in adulthood, apart from helping me not to get fished at the local chipper. I never asked. As it happened, table singing with Old Old must have worked because I'd committed the lot to memory at an early age.

Although I couldn't see why I had to know them, it was not long before I realized that most of the other things I didn't see a use for were based on their accurate retention. Grammar school was rote, too, but a more sophisticated version of it. I can't remember the ponderous length and capacity items which took half page of a primary school exercise book. But there were other, more magnificent obsessions to do with the rates of outflow in public swimming pools and the length of time it took three men to dig a trench.

I managed a credible O level by regurgitating the current formulae for the benefit of examiners, but it was some years before I needed to use even the smallest part of the school maths I had picked up over the previous 11 years to solve a "real-life problem".

When I first started teaching I realized, with amusement rather than shock, that I was using textbooks not far removed from the ones I had been handed 20 years before. Gone was 12 gallons 3 quarts 1 pint 2 gills of Dandelion and Burdock divided between 42 children at a tea-party, its place taken by the more unassuming 374×53 type of stimulation.

I asked older, more experienced members of staff what use it all was, where was it getting anyone - especially the less able child who found even wiping his nose a problem. "It develops the mind," they replied. "It teaches a discipline. It gives them feelings of achievement and confidence they would otherwise lack." To be honest I hadn't noticed my charges' lack of confidence and neither, to be fair to them, had they.

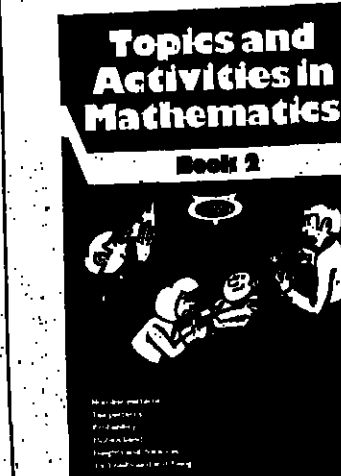
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HEINEMANN EDUCATIONAL BOOKS

Aesthetic values

The beauty of mathematical curves by Donald Eperon

Graphical work is usually included in the syllabus for O-level maths examinations, mainly as a means of solving problems in a practical way. Straight lines, representing linear equations, are used in linear programming, column graphs and pie-charts represent statistical data, problems involving time, distance, velocity and acceleration are soluble by graphical methods, and approximate solutions to quadratic and cubic equations can be found by using co-ordinate geometry.

Quadratic curves, (circle, parabola, ellipse and hyperbola) feature in A-level work, together with trigonometric and polar curves, whilst the idea of the limiting values of a function, as x approaches zero or infinity, can be illustrated by cubic curves with asymptotes.

The inclusion of these topics in a school course can be justified on utilitarian grounds, as they develop mathematical concepts and generate processes that are useful in the world of physics, economics, statistics, etc. Mathematics is certainly the indispensable handmaid of Science, but as G.H. Hardy pointed out, it is also an art in its own right, and has aesthetic values in the beauty of its intellectual ideas.

Children who will use their mathematical talents in adult life need no incentive, but those who find mathematics dull and difficult may find that graphical work has an aesthetic appeal that stimulates their interest, although their mathematical activities will cease after they leave school.

Co-ordinate geometry can be introduced by drawing symmetrical shapes

and patterns on squared paper. Plot the point (4,4), and draw straight lines joining it to the point (0,0), (0,3), (0,6), (3,0) and (6,0) (Fig 1). Then draw the reflection of this pattern in the y-axis, then add the reflections of both patterns in the x-axis. The resulting pattern may then be coloured to emphasize the symmetrical shapes it contains. How many lines of symmetry has it?

Another pattern is made by joining in succession the points (4,0), (6,2), (2,2), (2,6), (0,4), and joining each point to the origin. Then successive reflections in the axes produces an eight-pointed "star" with four lines of symmetry.

Straight lines that represent solution sets to linear equations, $ax + by + c = 0$, or $y = mx + c$, and to quadratic equations, $y = ax^2 + bx + c$ or $xy = c$, are drawn at first after preparing a table of values for x with the corresponding values of y .

The plotted points are then joined by a straight line or a smooth curve, but experience shows that a line is defined by the points where it meets the axes, $x = 0$ and $y = 0$, or by its gradient m and the intercept on the y -axis, c , whilst every parabola has the line $2ax + b = 0$, containing the maximum or minimum point, as its axis of symmetry.

Sets of linear equations, e.g. $3x \pm 4y \pm 12 = 0$, or of quadratic equations, e.g. $y = x^2$, $y = 2x$, $y = \frac{1}{2}x^2$, $y = 1 - x^2$, $y = 2 - x^2$, are easily drawn and make symmetrical shapes and patterns. (Fig 2).

Cubic equations, however, provide a wider variety of beautiful curves, from the simple set $y = x^3$, $y =$

$x^3 - 1(x+1)$, $y = 2x(x-1)(x+1)$, Fig 3, to those with one or more asymptotes, e.g. $y = (x-1)(x+1)/x^2$, Fig 4, and those with loops, e.g. $y = x^3(x+1)$, Fig 5.

I have a collection of some eighty different cubic curves of the kind that might appear in an A-level text book; some need only a table of values for y corresponding to values of x from minus infinity to plus infinity, but others can be drawn quickly by finding a few salient points, such as those where $x = 0$ or $y = 0$, and those for which x or y become "infinite" that reveal the asymptotes.

For example, $y = x^3/(x^2-1)$ passes through the origin, since $x = 0$ makes $y = 0$, and the curve touches the x -axis at the origin since $x = 0$ makes $y = 0$ twice. When $x = 1$, y is an asymptote. But y becomes infinite when $x = 1$ or $x = -1$, and so both of these vertical lines are also asymptotes. Clearly y is negative when x lies between -1 and $+1$, and so the curve looks like Fig 6.

Have a go at sketching the following curves, and your reward will be a sense of artistic satisfaction and intellectual pleasure: (7) $y = x/(x-1)(x+1)$, (8) $y = x^2/(x-1)(x+1)$, (9) $y = (x+1)/x$, (10) $y = (x-1)/(x^2+1)$, (11) $y = x^2/(x^2+1)$, (12) $y = (x+1)/(x^2-1)$, (13) $y = (x-1)/(x^2-1)$, (14) $y = x/(x^2-2)$, (15) $y = (x+1)^2/(2-x)$, (16) $y = (x^2+1)/x$, (17) $y = x^2/(x^2+1)$, (18) $y = x/(x^2+2)$, (19) $y = x^3/(x+1)$, (20) $y = (x^2+1)/(x+1)$.

D B Eperon is Canon Emeritus of Salisbury. He is happy to visit schools to talk on his approach to mathematics.

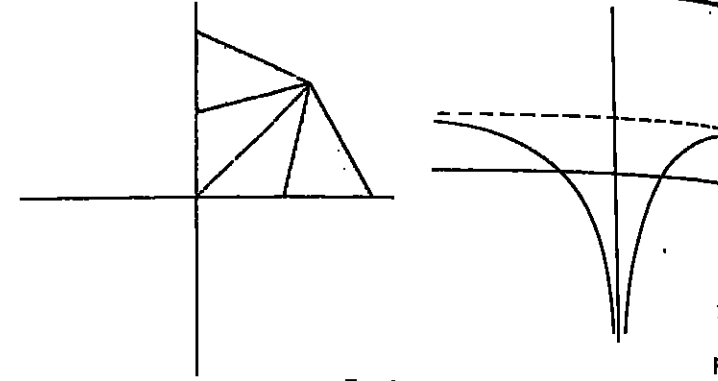


Fig 1

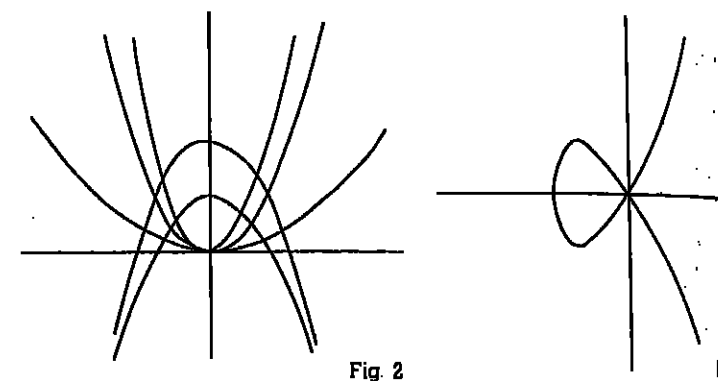


Fig 2

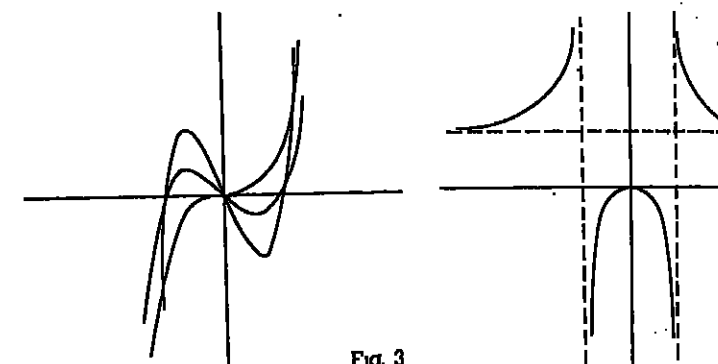


Fig 3

National tester

Frank Budden introduces the second National Mathematics Contest

It does not at first sight appear to be the most likely candidate for competition. For various reasons, competitors seem to be flourishing as never before, not only in this country, but almost everywhere else.

The media must share a large part of the credit for the great interest which has grown up in the post-war period, since radio and television have been able to present contests in an attractive, lively and appealing way. Games - from baseball, through cricket, (up?) to chess are, of course, by their very nature, vehicles for the competitive spirit; while competitions to select the best performer in artistic areas have also existed for a very long time. But subjects with an academic flavour have only recently been exploited for competitive purposes.

The general public probably thinks in its innocence of a mathematical competition as a contest to find who can "get the right answer" (to numerical calculations) in the shortest time. If that were all there was to mathematical competitions, it is hardly likely that they would have survived. To be sure, the types of questions which are used in these contests are widely varied, ranging over topics which are not necessarily included in ordinary school work.

It is probably the breadth of scope of the questions which makes the greatest appeal and accounts for the popularity of these competitions. What they

are, it is not at first sight likely to arouse enthusiasm in the young in the process of learning so much as the process can be made into a "game" with rivalry providing strong motivation. The catalytic effect is, of course, strongest in the case of those who have the greatest chance of success.

The development of mathematics competitions has grown up in this country alongside similar movements in other countries, in many of which the genre is more highly developed and more tightly organized. Besides this, in many countries, a wider coverage of the ability range is attempted than we achieve here. In the United Kingdom, the Mathematical Association has played a large part in promoting two types of competition - first, the local inter-schools knock-out type of contest (some of which rise to coverage on local radio), and second, the National Mathematics Contest (NMC) which is with reference to the latter that this article is largely concerned.

This annual nation-wide competition is in the form of a 30-question multiple-choice paper occupying 90 minutes. There is a sharp "difficulty gradient" - questions nearer the end being markedly more challenging than those at the beginning. The questions are extremely interesting and ingenious, having originated as the American High School Mathematics Examination (AHSME), of which NMC is a replica, and which this country is

able to use by courtesy of AHSME. The original contest in the United States is sponsored by the Mathematical Association of America. It is highly competitive, with the number taking part in 1983 being 10,000 and 15,000 in 1984.

With the American figure suggests that we might well look for an increase in the numbers taking NMC. It is hoped that this article will have the effect of making the competition more widely known.

Usually schools select volunteers to take part in the test, and these would mostly be drawn from sixth forms. But able pupils below sixth forms should certainly be encouraged to enter, and many achieve remarkable success because of the nature of the questions, requiring ingenuity and thought rather than knowledge of the syllabus, or manipulative skills. Even quite young pupils may be entered for NMC, as long as they are warned that their performance at their first attempts may be quite limited. But since the competition is an annual one, performance is likely to improve with each successive attempt.

One encouraging feature of this competition has been the increasing proportion of girls taking part, and their steadily increasing success, culminating this year in the selection of a girl (Allison McDonald) to the UK team in the International Mathematical Olympiad. She achieved the distinction of out-performing all the girls from other countries taking part.

The 1984 NMC will take place on the morning of Tuesday, February 28, in the pupils' own schools. Applications may be made as detailed below. Notwithstanding the C in NMC, its status is not merely competitive, and it is certainly not a "distress" exercise. NMC is not about winning or losing. Its chief function is to stimulate an interest in mathematics, to open new doors, to offer challenges to problem-solving ability.

Nevertheless, participants will naturally enough take note of their scores, and admittedly there does exist the danger that low scores and indifferent performances may result in discouragement. Wise teachers will be careful to forestall this danger, for example by following up the test with a classroom session dealing with solutions for the benefit of those who took part. Teachers are in any case provided with a booklet of solutions to the problems.

Clearly, in view of what has been said above, the difficulty of the questions, the NMC is chiefly attractive to

the more able pupils. A working party of the Mathematical Association is looking into the possibility of launching further contests which would be suitable for a wider ability range, as well as to younger pupils.

The NMC does have one small competitive strand - it is used as one means of selecting promising pupils to take the British Mathematical Olympiad (BMO) which is held shortly afterwards each year. Some 200 or so candidates take part in this, and as a result of their performance, about 30 are selected to take the Further International Selection Test (FIST), from which, finally, a team (numbering six in 1983) is chosen to represent the UK in the International Mathematical Olympiad (I.M.O.).

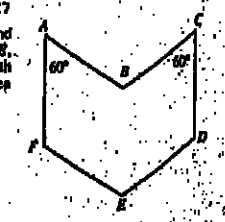
This is of course very much an exercise in the pursuit of excellence, and it originated 24 years ago as a competition between countries linked to the Soviet Union, but has now spread across the world. In the 1983 IMO held in Paris, 32 countries took part, with a total of 168 participants. The venue for 1984 is to be Czechoslovakia.

Reverting to the NMC, the focus of the paper may be sensed by looking at the page from the 1980 paper which is printed below, showing specimen questions. Supplies of papers from recent years may be obtained from the Mathematical Association, 29 London Road, Leicester, LE2 3BE, price 20p per paper, including solutions.

The competition is organized on a regional basis, and applications should be in by December 1, 1983 should be made through regional associations. Detailed information and application forms may be obtained by sending a SAE to the Mathematical Association headquarters, address as above, or to the NMC Secretary, Mr J Budden, 15 Westfield Ave, Gosforth, Newcastle upon Tyne, NE3 4YH.

Frank Budden is Secretary of the NMC, ex-President of the Mathematical Association (1982-83), formerly head of mathematics department, the Royal Grammar School, Newcastle upon Tyne, and author of several mathematical texts at sixth form level.

1. If $x \neq 0$, $\frac{1}{x} = y$ and $\frac{1}{y} = x$, then x equals
(A) 1 (B) 16 (C) 32 (D) 64 (E) 128
2. Point P is outside circle C on the plane. At most how many points on C are 3 cm from P?
(A) 1 (B) 2 (C) 3 (D) 4 (E) 5
3. Three primes, p , q and r , satisfy $p+q+r = 1$ and $p < q < r$. Then p equals
(A) 2 (B) 3 (C) 7 (D) 11 (E) 17
4. In the adjoining plane figure, sides AB and CD are parallel, as are sides AD and BC, and sides AC and BD. Each side has length 1. Also $\angle FAD = \angle BCD = 60^\circ$. The area of the figure is
(A) $\frac{1}{2}$ (B) $\frac{1}{3}$ (C) $\frac{1}{4}$
(D) $\frac{1}{5}$ (E) $\frac{1}{6}$
5. Triangle ABC has a right angle at C. If $\sin A = \frac{3}{5}$, then $\sin B$ is
(A) $\frac{1}{5}$ (B) $\frac{2}{5}$ (C) $\frac{3}{5}$ (D) $\frac{4}{5}$ (E) $\frac{5}{6}$
6. When $x^2 + x + 1$ and $1 + x + x^2$ are multiplied, the product is a polynomial of degree
(A) 2 (B) 3 (C) 5 (D) 7 (E) 8
7. Alice sells her bag at \$10 less than the list price and receives 10% of her selling price as her commission. Bob sells the same bag at \$20 less than the list price and receives 20% of his selling price as his commission. If they both get the same commission, then the list price is
(A) \$20 (B) \$30 (C) \$40 (D) \$50 (E) \$60
8. Let $f(x) = \frac{1}{x^2+1}$. Then $f(x^2 + 1) =$
(A) $\frac{1}{x^2}$ (B) $\frac{1}{x^2+1}$ (C) $\frac{1}{x^2-1}$ (D) $\frac{1}{x^2+2}$ (E) $\frac{1}{x^2-2}$
9. In a certain population, the ratio of the number of women to the number of men is 11 to 10. If the average (arithmetic mean) age of the women is 34 and the average age of the men is 32, then the average age of the population is
(A) 32.5 (B) 33 (C) 33.5 (D) 34 (E) 34.5



briefings

radio & tv

For schools

DEUTSCH FÜR DIE OBERSTUFE
(Monday-Friday 00.30, VHF4)
German resource material for use with sixth form students. Includes a

programme on the authors forming "Gruppe 47" and a unit focusing on the language and life north and south of the river Main.
WORD GAMES
(Monday 11.40, VHF4)
Games to encourage 10 and 11-year-olds to experiment with words in order to develop greater confidence in the use of new vocabulary.
GENERAL STUDIES
(Mon 11.42, Wed 11.39, BBC2)
"Censorship: The Limits of Freedom" is a

new unit for sixth forms examining the issues raised by censorship. This week "Who is Big Brother?" considers the constraints on journalists in the media.
HOW WE USED TO LIVE
(Wednesday 11.39, Friday 9.47, ITV)
Yorkshire Television are developing a series of computer software programmes to link with this series. "Goodnight Children, Everywhere", this week's television programme, follows a child evacuee. The corresponding software is "Children on the Move".

Continuing education

GREEK LANGUAGE AND PEOPLE
(Saturday 18.40, BBC2)
Series of ten programmes on Modern Greek language and culture.
SO YOU WANT TO BE A WRITER
(Sunday 16.40, VHF4)
Creative and practical advice to would-be writers on how to develop and improve their writing skills.

MIND HOW YOU GO
(Sunday 18.30, BBC1)
Ten short programmes presented by Jimmy Savile, with nationwide back-up, to try to reduce all kinds of road accident.
THE WORLD AT WAR
(Sunday 19.15, C4)
A repeat of Thames Television's successful 26-part series featuring stories of the Second World War. Here "A New Germany" examines the circumstances under which Hitler and the Nazis assumed power in the 30s.

CHILDREN'S TELEVISION

Blue Peter Silver Jubilee
BBC1
Sunday 16 October, 4.30.

Biddy Baxter is delighted that her present team of presenters were all "Blue Peter babies". Simon Groom, Peter Duncan and Janet Ellis, like any number of teachers, parents (and journalists), have fond memories of Christopher Trace, Valerie Singleton, John Noakes, Petra and Blue Peter as it was - yes, say it - a generation ago.

But although she has been editor of the programme for the last 21 of its 25 years - a unique achievement in itself - she is determined that this week's silver jubilee celebrations should be forward-looking, not a self-indulgent wallow in nostalgia. "You must remember," she says, "a lot of what has happened in the programme was all over before our present audience was even born. We might be interested, but there's no reason why they should be."

It is this attitude which has kept Blue Peter consistently the most successful children's show on television ever since the first edition went out on 16 October 1958. In Biddy Baxter's words: "Know who you are aiming at, keep faith with them and faith in your material." Times, presenters, even the "unique signature" tune heard changed or rearranged, but the programme has never failed to wither and die, but the programme's wholesome ethos has always remained substantially the same.

"It is important that the presenters are there in the studio at the beginning and end of the programmes," says Biddy Baxter. "Whatever they have been doing earlier on film, at least they're still there in the familiar studio set to say 'Bye-bye, see you on Monday'. Children like to know where they are and they need that kind of security."

The programme's target audience of six to 12-year-olds at any rate. Blue Peter has always resisted the temptation to "grow up with them" as assume as Thames Television's *Magic* used to) but just because they're kids they'll be interested in pop and all that's needed is a live band in the studio every week.



Biddy Baxter's babes

Hugh David joins in the celebrations of Blue Peter's 25th birthday

It's just not necessary, according to Biddy Baxter. She knows that the children who watch Blue Peter are interested in a lot more than pop. They write in and tell her so; 4,000 of their letters arrive in the programme's office at Television Centre every week. Every one is read and answered, every idea considered. As far as Biddy

Baxter is concerned, that is one of the programme's greatest strengths - and a practical example of how it keeps faith with its audience - although she freely admits it is also a two-way traffic. Approximately 70 per cent of the content of every edition starts off with a viewer's letter; someone, usually a child, occasionally a parent or teacher,

writing in to say "Why don't you do something about...?" "It is their programme after all," Biddy Baxter goes on. "When we decided to have Petra in 1962 it was so that she could be a substitute pet for all those children who couldn't have pets of their own for one reason or another. And the same goes for Goldie and Jack

and George now. That's why we have them in the studio every week."

The same is also true of the summer expeditions. "There aren't many children who can go off to Egypt or Mexico. It's very expensive, but we can do it, and I think we should." The trips have taken Blue Peter presenters to America, Japan, Borneo, Thailand and more than a dozen other exotic locations since the first tentative foray to Norway in 1965. This year it was Sri Lanka. "It's important that the eight-year-old watching the programme realizes that there are eight-year-olds out there well on the way to becoming Buddhist monks."

Meeting Biddy Baxter, watching more than a few moments of the programme, this concern with and for the viewers is the strongest impression one gets. Biddy Baxter doesn't even mention the 15 major awards the programme has won over the years (five times Top Children's Programme in the Sun Television Awards, two separate BAFTA Awards and a Pye Award presented to Biddy Baxter herself for distinguished services to television) but she is only too pleased to talk about the success of the various Blue Peter Appeals.

The 1979 Great Blue Peter Bring and Buy Sale to raise money for Cambodian refugees reached its £100,000 target within two days. Eight months later, in July 1980, the final total stood at £370,614. But the appeals are

Hence the collections of junk - used postage stamps, milk bottle tops, tags - anything which can be re-used and which does not cost a lot to post in.

Inevitably the programme has had and will continue to have its critics, dissenters - usually adults - voices complaining that despite all the "right things" too comfortable, too twee and a little too childish. Biddy Baxter listens to them but then remembers her real audience: "the aficionados of six to eight". After 25 years and 10,000 different items they have kept faith with Blue Peter because Blue Peter has kept faith with them. The real success of the programme, she points out, is quite apart from the awards and the many millions of pounds it has raised for charity, is that it has "entertained so many children for so long".

Vernacular buildings

Built in Britain
Eight-part series for Channel 4
Sundays 4.0
Production Company Artifax.

Britain is renowned for its stately homes and other impressive buildings constructed in the grand style and the subject, not surprisingly, has received the attention. But a very important part of our architectural heritage lies in the wealth and diversity of vernacular buildings dotted around. Britain's equally varied countryside. This offers exciting possibilities for a major television series, but to cover the vernacular architecture of eight areas of Britain, allotting only 30-odd minutes to each, is no mean task.

However, no time is wasted in taking us straight to the point. The format for each programme is the same: the introductory graphics showing houses of different styles and types, taken from point briefly and powerfully, and the jaunty snatch of opening music leads to a simple and effective guide which surfaces again later on. In the case of the Devon programme, the soothing voice of the lady presenter seems slightly out of place alongside shots of Betty-men digging out the red clay and mixing it with straw and grit to form cob, but the information - which could have been presented tediously and stiffly - is

The cameraman works to a very high standard; the quality of the photography is superb, demonstrating the strong relationship between the material chosen for building and the type of surrounding countryside. It is a visual treat.

The diversity of interviewees adds a great richness and provides a mixture of fact and fun. Alfie Howard, whose task is to repair a 16th-century cob wall alehouse, compares it to a baby: both need a dry hat and a dry bottom. Clearly, much repair is needed. Peter Beecham stresses that handling property on from father to son helps to preserve it and all too often interest is expressed in a building's earliest date, but importance is not given to continuity and how the buildings change with gradual additions over the years.

Mr Coles, who comes from a family of thatchers and owns a Devon farmhouse with elaborate plaster ceilings, when questioned about the cost of repair wryly responds "I'd prefer a bungalow". But perhaps the most extraordinary character is Miss Johnson, who owns and works a farm with her parrot as sole companion. Miss Johnson enjoys self-sufficiency and about her farmhouse states "my great ambition is to keep it in its original form". This she has succeeded in doing by living in almost 19th-century conditions with no central heating, bathroom or hot water. But

she is still alive to tell the tale. We come, all too soon, to the end of the programme, but my appetite for information was sadly unquenched. We are shown plenty of examples of fine architectural features - timbered stone walls, plastered ceilings and stone walls - but no overall picture of how everything fits together. Without some kind of meaningful framework, a context for the goodies received, it's a bit like sampling many dishes without having a solid three-course meal. Where, I quietly wondered to myself, was the theme?

The programme also rolled heavily on the buoyancy of the characters to carry it through. The second in the series, on Wales, highlights this problem and stands in sharp contrast to the first. Without the jokes and chuckles and with a smattering of self-conscious interviewees, the information is heavier and more difficult to digest, even producing the occasional thumbs-down. A visit to the quarries at Blaenau Ffestiniog, and demonstrations of the traditional use of slate give something to get your teeth into but the rest is weaker; the last part, seemingly there to provide Welsh countryside to the accompaniment of church singing.

Gillian E Thomas

Concrete music

ETV
Music Time
BBC2 Mondays, 10.15
Repeated Thursdays, 2.15.

The BBC's long-running music education programme, *Music Time*, is back this term with a new series which has opened boldly by exploring the musical potential of a building site. Various hammerings, drillings, sawings, bangings and shoutings were recorded to illustrate the basic ways of describing sounds: long/short, loud/quiet, high/low, and so on. In their felicitous way, however, the programmes move constantly between *musique concrete* and more conventional material, reinforcing a chosen concept from many different angles. Programme 1 concentrates on describing sounds; programmes 2 and 3 deal specifically with long/short sounds and high/low sounds.

The programme format has changed in detail, though not in principle: two presenters (Jonathan Cohen and Helen Spiers), live audience and live musicians, plenty of singing and other activities. There does seem to be a more intimate and relaxed atmosphere about the production, which is doubtless promoted by presenters' making more freely with a smaller number of children whose singing, indeed, is beginning to show signs of spontaneous enjoyment, highlighted by the

occasional candid close-up. On the other hand, treatment of question-and-answer sessions is still not altogether satisfactory. The pressure to elicit a short answer of some kind as quickly as possible does not allow much time for either personal attention or discussion. One wrong answer in programme 3, for instance, illustrated the problem of verbal reinforcement of aural concepts. The cellist played a glissando going down in pitch, but in order to do so, her left hand actually had to travel upwards on the fingerboard; the girl who answered "up" was clearly watching rather than listening, but there was no time to clarify the problem.

In a short programme, the compromise in favour of speed is probably the right one, however, and in other ways the children have been encouraged to make more personal contributions. One such is the introduction of short aural games, where they have to make simple vocal or percussion sounds in response to each other or a leader - high followed by low, or short contrasted with long, for example. Not only does the idea generate some spontaneity, but it provides a means of instant follow-up for classroom-bound viewers. Full notes and the music for the songs are provided for teachers and pupils.

Andrew Pegg

THE MATHEMATICAL EXPERIENCE

Philip J. Davis Reuben Hersh

How many of the growing army of A-level mathematicians have any idea of what mathematics is about? Far too few, one suspects. Now the perfect book for them, and their teachers and parents, is out in paperback. *The Times Educational Supplement* £5.95 460 pages.



Royal County of BERKSHIRE

SPECIALIST PROVISION FOR CHILDREN WITH READING DIFFICULTIES TEACHERS-IN-CHARGE

Required for January/April 1984, 8 qualified and experienced PRIMARY TEACHERS to take charge of reading centres based in a number of schools across the county. One post, in Bracknell, will be at Scale 3 (Co-ordinator/Teacher), the remaining posts at Scale 2. Application form and further details including the schools to which appointments will be made from the Director of Education (ES/SS), Shire Hall, Shindfield Park, Reading RG2 9XE (SAE). To be returned as soon as possible but no later than 4th November, 1983.

Berkshire County Council is an equal opportunity employer and all applications will be considered solely on the basis of suitability for the post irrespective of race, colour, sex, marital status or disability. (7125)

CUMBRIA COUNTY COUNCIL

Sedburgh High School, Sedburgh. (Mixed comprehensive, 11-16 years, 194 on roll)

Re-advertisement

Required for Easter 1984

A HEAD

for this Group 5 school

Application forms and further details available from the Assistant Director of Education, John Whinnerah Institute, Abbey Road, Barrow in Furness, to whom completed forms should be returned by 28th October 1983. (SAE please). Previous applicants will be given further consideration. (7120)

Headship

St Thomas More Comprehensive School
Palace Fields, Buxton, Derbyshire

Group 6 NOR 250

The Governors invite applications from suitably qualified, experienced and committed practising Catholic Teachers for the headship of this mixed comprehensive secondary school maintained by the Derbyshire Authority. The headship will be vacant from Easter 1984 owing to the retirement of Mr John O'Meara, KSQ, the Headmaster for the past 22 years.

Application forms and further details (see please) from the Director of Education, County Office, Matlock, Derbyshire. Completed forms should be returned to the Chairman of Governors, Reverend Father P. Cullen, MPhil, St Anne's Presbytery, Terrace Road, Buxton, Derbyshire. Closing date: 28th October, 1983. (8417)

WIRRAL

Metropolitan Borough of Wirral
ROMAN CATHOLIC COLLEGE
Wallsley Village, Wallsley, Merseyside L45 3LN
(11)12 Mixed Comprehensive, established number on roll September 1984: 1,700 (including 180 Sixth Form)

REQUIRED FOR 1st SEPTEMBER 1984

HEADTEACHER (GROUP 13 SALARY)

For this two-site school recently re-organised from 13-18 to 11-18 years. The vacancy arises through the retirement of the present Headteacher.
Application forms and further details are available from the Director of Education, Education Department, Milford Offices, Cleveland Street, Birkenhead, Wirral L41 6NH. Completed forms should be returned to the Chairman of Governors, St Mary's College, 20 Curial Office, 2 Park Road South, Birkenhead L45 4UX by 1st November 1983.

PRIMARY EDUCATION continued

TRAFFORD
METROPOLITAN BOROUGH OF TRAFFORD
EDUCATION DEPARTMENT
ST VINCENT ROAD, ALTRINCHAM
CHESHIRE WA15 8EJ
SCALE 1
Required as soon as possible. An interview at the County Office, Altrincham, will be held on 15th November 1983. Catholic teachers certificate essential. Application forms available from the Director of Education, County Office, Altrincham, or from the Schools Section, Town Hall, 120, Victoria Road, Altrincham, Cheshire WA15 8EJ. Closing date: 28th October 1983. Rf. No: P517417. (62513)

WALTHAM FOREST
ST MARY'S R.C. PRIMARY SCHOOL
St Mary's Road, London E4
Head: Mr. M. J. Taylor
REQUIRED FOR JANUARY 1984. An enthusiastic, committed and experienced Catholic teacher initially for a reception class; to take responsibility for co-ordinating the programme for religious education throughout the school. LE 2 post plus London Allowance available for suitable applicants. The successful candidate will be offered a permanent position with the Catholic Teachers' Religious Certificate at an advantageous salary. Application form and further details available from the Headteacher (S.A.E.), or from the Director of Education, Waltham Forest Education Office, 110022 Rf. No: P517417. (62513)

WILTSHIRE
HILMARTON COUNTY PRIMARY SCHOOL
Compton Road, Hilmarton, Wiltshire SN11 8EG
SCALE 1 POST
Group 2 NOR 69
Temporary for two terms only.
Required from January 1984, an experienced Scale 1 Teacher for various mixed infant classes in this village school.
Further details and application forms from and returnable to the Headteacher (S.A.E.), or from the Director of Education, Wiltshire Education Office, 110022 Rf. No: P517417. (62513)

Remedial Posts

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Middle School Education

Headships

ISLE OF WIGHT
COUNTY COUNCIL
THE CHURCH OF ENGLAND
(Aided) Middle School
Wellington Road, Newport, Isle of Wight PO30 3QY
The Governors wish to appoint a Head Teacher for the school from 1st January 1984 when the present headmaster will retire.
Applicants should be well qualified and widely experienced teachers who are committed to the Church of England.
The school is in Group 6, has 410 pupils in the 9-13 age range and is open to all. Further information and application forms (S.A.E.) are available from the County Education Officer, County Hall, Newport, Isle of Wight PO30 1UD, to whom they should be returned before 28th October 1983. (135010)

Deputy Headships Second Masters/ Mistresses

MERTON
LONDON BOROUGH OF MERTON
EDUCATION COMMITTEE
WILLIAM MORRIS MIDDLE SCHOOL
Recreation Way, Mitcham, Surrey, S.M.12 9BA
Headteacher: Mr. B.M. Clardy, B.A.
Age Range: 9-13 years
No. of Pupils: 550
Required for January 1984 a Deputy Headteacher for this Group 7 middle school. Further information and details of the position are available from the school.
Salary: £5,987
Legal expenses and assistance towards removal expenses will be considered in approved cases.
Application forms and further particulars of the post are available from the Headteacher at the above address. Please enclose a recent photograph and a covering letter. Closing date: 28th October 1983. (135010)

By Subject Classification

Mathematics

Scale 1 Posts

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Remedial Posts

Scale 1 Posts

Application forms and further details available from the Director of Education, County Office, Matlock, Derbyshire. Completed forms should be returned to the Chairman of Governors, Reverend Father P. Cullen, MPhil, St Anne's Presbytery, Terrace Road, Buxton, Derbyshire. Closing date: 28th October, 1983. (8417)

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Remedial Posts

Scale 1 Posts

Modern Languages

Scale 1 Posts

SUFFOLK

COUNTY COUNCIL
LUTTINGHAM MIDDLE SCHOOL
Lutlington, Norfolk NR32 5LL
Scale 1, 10-13 years
Required for 1st January 1984 a teacher of French and English. Must have a minimum of 5 years' experience in the subject. Further details and application forms (S.A.E.) are available from the Headmaster (S.A.E.) at the school. Closing date: 14 days after advertisement. (58370)

Physical Education

Scale 1 Posts

SUFFOLK

COUNTY COUNCIL
HARDWICK MIDDLE SCHOOL
Hardwick, Norfolk NR32 5LL
Scale 1, 10-13 years
Required for 1st January 1984 a teacher of Physical Education. Must have a minimum of 5 years' experience in the subject. Further details and application forms (S.A.E.) are available from the Headmaster (S.A.E.) at the school. Closing date: 14 days after advertisement. (58370)

Other than by Subject Classification

Scale 2 Posts and above

WARWICKSHIRE

HILLMORTON PADDON COMBINED SCHOOL
Farthingley, Warwick CV32 5HR
(393 on roll)
Required 31st October 1983, a temporary class teacher for one year, middle school, with responsibility for the school throughout the year. The successful candidate will be expected to take over the school department during the absence of the permanent post-holder on maternity leave. Salary £5,987. Apply to the Head at the school. (65555)

Scale 1 Posts

KIRKLEES

METROPOLITAN COUNCIL
EDUCATION SERVICES
HOLWELL MIDDLE SCHOOL
Huddersfield, West Yorkshire
Required for 5 January 1984 a teacher for the school with the ability to take over the school department during the absence of the permanent post-holder on maternity leave. Salary £5,987. Apply to the Head at the school. (65555)

SUFFOLK

COUNTY COUNCIL
LUTTINGHAM MIDDLE SCHOOL
Lutlington, Norfolk NR32 5LL
Scale 1, 10-13 years
Required for 1st January 1984 a teacher of French and English. Must have a minimum of 5 years' experience in the subject. Further details and application forms (S.A.E.) are available from the Headmaster (S.A.E.) at the school. Closing date: 14 days after advertisement. (58370)

Deputy Headships

Second Masters/
Mistresses

Application forms and further details available from the Director of Education, County Office, Matlock, Derbyshire. Completed forms should be returned to the Chairman of Governors, Reverend Father P. Cullen, MPhil, St Anne's Presbytery, Terrace Road, Buxton, Derbyshire. Closing date: 28th October, 1983. (8417)

Remedial Posts

Scale 1 Posts

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Remedial Posts

Scale 1 Posts

NOTTINGHAMSHIRE

COUNTY COUNCIL
LUTTINGHAM MIDDLE SCHOOL
Lutlington, Norfolk NR32 5LL
Scale 1,

Somerset County Council

SOMERSET COLLEGE OF ARTS AND TECHNOLOGY, TAUNTON
DEPARTMENT OF ART & DESIGN

1) LECTURER II - TEXTILE & SURFACE PATTERN DESIGN

Required from 1 January 1984, primarily to teach Textile and Surface Pattern Design on the DATEC Higher Diploma. Applicants will be expected to have appropriate academic and/or professional qualifications with substantial experience in design practice and the ability to motivate students in this highly competitive area of study. Previous teaching experience is essential. Closing date 28 October.

2) LECTURER II - HISTORY OF ART AND DESIGN

Required from 1 January 1984 or as soon as possible thereafter to teach on DATEC Diploma and Certificate and DATEC Higher Diploma courses (Graphic Design and Textile and Surface Pattern Design). Applicants should hold a degree or equivalent demonstrating a good general knowledge of Art and Design History. Teaching experience is essential and applicants must have a genuine interest in developing areas of Art and Design History related to specialist courses. Closing date 28 October.

3) PART-TIME LECTURER - HISTORY OF ART AND DESIGN

Required as soon as possible to teach 7 hours per week in a team situation on the General Diploma in Art and Design (DATEC). Salary grade Burnham Cat. IV. Closing date for completed applications 28 October 1983. Application forms and further particulars from the Chief Administrative Officer, Somerset College of Arts and Technology, Wellington Road, Taunton, Somerset TA1 5AX (SAE please).

SOMERSET COLLEGE OF AGRICULTURE & HORTICULTURE, CANNINGTON, BRIDGWATER TA5 2LS

WARDEN/LECTURER IA

Applications are invited for this post from persons with an interest in young people and with training and experience in agriculture or horticulture. Approximately 11 hours a week will be spent in teaching duties. The salary is on Lecturer IA of the Burnham Scale of Salaries for Lecturers in Agricultural Colleges, at present £5,649-£9,735. Point of entry dependent on qualifications and experience.

Application forms and further details from the Clerk to the Governors (SAE 24 x 16 1/2 cm please) to whom the completed applications should be returned by Friday 28th October. In an envelope marked

Department of Business Studies
LECTURER I COMPUTING IN BUSINESS STUDIES

Ref: BF/M/1/6

Department of Secretarial Studies
ASSOCIATE LECTURER IN COMMUNICATION STUDIES

Ref: BF/M/1/1A

Department of Construction
ASSOCIATE LECTURER IN CARPENTRY & JOINERY

Ref: BF/M/1/2A

For further particulars and application forms apply to the Principal, Blackpool and Pricke College of Further and Higher Education, Ashfield Road, Blispham, Blackpool, FY2 0HE.

Closing date: 21st October, 1983.

The Lancashire County Council is an equal opportunity employer. (8873)

LANCASHIRE COUNTY COUNCIL

CYNGOR SIR GWYNEDD

COUNTY COUNCIL

GWYNEDD TECHNICAL COLLEGE

BANGOR

Required for January 1984

LECTURER Grade II

In Engineering Drawing/Design

18 and Tool Design to TEC Higher Certificate level

LECTURER Grade II

In Housekeeping and Catering

Salary in accordance with Burnham FE scales for Lecturers II - £7,125-£11,568

Application forms and further particulars from the Principal, Gwynedd Technical College, Bangor, Tel: Bangor 364186. Closing date: 24th October 1983.

(8307)

COLLEGES OF FURTHER EDUCATION

ISLE OF WIGHT

COUNTRY COUNCIL

1881 COLLEGE

DEPARTMENT OF STUDIES

LECTURER GRADE I

Required for January 1984 to teach on DATEC Higher Diploma and Certificate courses in Textile and Surface Pattern Design. Applicants should hold a degree or equivalent demonstrating a good general knowledge of Art and Design History. Teaching experience is essential and applicants must have a genuine interest in developing areas of Art and Design History related to specialist courses. Closing date 28 October.

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SOMERSET COLLEGE OF AGRICULTURE & HORTICULTURE, CANNINGTON, BRIDGWATER TA5 2LS

WARDEN/LECTURER IA

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LIVERPOOL

LECTURER GRADE I

COMPUTING AND MATHEMATICS

£5,649 - £9,735

NORTH EAST LIVERPOOL

TECHNICAL COLLEGE

LECTURER GRADE I

Required as soon as possible to teach on DATEC Higher Diploma and Certificate courses in Textile and Surface Pattern Design. Applicants should hold a degree or equivalent demonstrating a good general knowledge of Art and Design History. Teaching experience is essential and applicants must have a genuine interest in developing areas of Art and Design History related to specialist courses. Closing date 28 October.

2) LECTURER II - HISTORY OF ART AND DESIGN

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NORTH TYNESIDE

METROPOLITAN BOROUGH

OF NORTH TYNESIDE

TECHNICAL COLLEGE

LECTURER GRADE I

Required as soon as possible to teach on DATEC Higher Diploma and Certificate courses in Textile and Surface Pattern Design. Applicants should hold a degree or equivalent demonstrating a good general knowledge of Art and Design History. Teaching experience is essential and applicants must have a genuine interest in developing areas of Art and Design History related to specialist courses. Closing date 28 October.

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WARDEN/LECTURER IA

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NORTH YORKSHIRE

COUNTY COUNCIL

TECHNICAL COLLEGE

LECTURER GRADE I

Required as soon as possible to teach on DATEC Higher Diploma and Certificate courses in Textile and Surface Pattern Design. Applicants should hold a degree or equivalent demonstrating a good general knowledge of Art and Design History. Teaching experience is essential and applicants must have a genuine interest in developing areas of Art and Design History related to specialist courses. Closing date 28 October.

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OVERSEAS (continued)

ARGENTINA

BELGRANO DAY SCHOOL

Buenos Aires

This leading co-educational independent school for 1300 pupils is seeking a SENIOR MASTER for March 1984. Teaching English, Mathematics, Science, History, Art, Music, and Physical Education. Salary £12,000 per annum plus pension and housing allowance. Apply to: Mr. A.J.M. Bell, 10, C.E. Road, London W14 9LH. Tel: 01-734 0151. (46000)

Generous local salary plus overseas housing allowance, free accommodation, medical scheme.

Please apply with c.v. and three references to: Mr. A.J.M. Bell, 10, C.E. Road, London W14 9LH. Tel: 01-734 0151. (46000)

SULTANATE OF OMAN ENGLISH LANGUAGE TEACHER

General The Royal Guard Brigade of the Sultanate of Oman require to appoint an English Language Teacher for the Royal Band (South). The candidate should be British born and educated, male, between the age of 28 and 50. Single man preferred. Candidate must be a graduate or trained teacher with at least three years experience teaching English as a foreign language preferably in the Arab world. TEFL qualifications desirable. The candidate should have an appreciation of interest in music.

Conditions Fully furnished two-bedroom ground floor flat with free electricity and water. A car will be made available free of charge including servicing.

Salary A salary of between Rials Omani 440 and 665 per month will be paid according to experience and qualifications. (Currently this is equivalent to approximately Sterling £260 and £1298).

A 20% gratuity is paid after the two year period. The initial contract will be for two years with the possibility of renewal.

Applications should be made in writing and marked Ref: RGB/ET with full CV in the first instance to the address shown below. Interviews will be held in London during the middle of November 1983 and the successful candidate will be required to commence his duties on or about 1 January 1984.

Charles Kendall & Partners Limited
7 Albert Court
Belvedere, London SE27 2BJ

BAHAMAS

ST. ANTHONY'S SCHOOL
This independent co-educational school is seeking a Music Teacher for March 1984. The candidate should be a graduate or trained teacher with at least three years experience teaching Music as a subject. Salary £12,000 per annum plus pension and housing allowance. Apply to: Mr. A.J.M. Bell, 10, C.E. Road, London W14 9LH. Tel: 01-734 0151. (46000)

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GERMANY

PARAGOGISCHE HOCHSCHULE
Helmholtz
Lektoren
to teach advanced English language classes (German, English, French, Spanish, Italian, Latin, Greek, etc.) and to assist in the preparation of students for the German language exam. Salary £12,000 per annum plus pension and housing allowance. Apply to: Mr. A.J.M. Bell, 10, C.E. Road, London W14 9LH. Tel: 01-734 0151. (46000)

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EGYPT

HELIOPOLEIS SOCIETY FOR THE SOCIAL AND CULTURAL RECONSTRUCTION OF HELIOPOLEIS
International School
to teach advanced English language classes (German, English, French, Spanish, Italian, Latin, Greek, etc.) and to assist in the preparation of students for the German language exam. Salary £12,000 per annum plus pension and housing allowance. Apply to: Mr. A.J.M. Bell, 10, C.E. Road, London W14 9LH. Tel: 01-734 0151. (46000)

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GREECE

EFL Schools on Gk Islands
re-qualified Gk teachers
Salary: £12,000 per annum plus pension and housing allowance. Apply to: Mr. A.J.M. Bell, 10, C.E. Road, London W14 9LH. Tel: 01-734 0151. (46000)

Generous local salary plus overseas housing allowance, free accommodation, medical scheme.

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OVERSEAS TEACHER EXCHANGE

TEACHER EXCHANGE
to teach advanced English language classes (German, English, French, Spanish, Italian, Latin, Greek, etc.) and to assist in the preparation of students for the German language exam. Salary £12,000 per annum plus pension and housing allowance. Apply to: Mr. A.J.M. Bell, 10, C.E. Road, London W14 9LH. Tel: 01-734 0151. (46000)

Generous local salary plus overseas housing allowance, free accommodation, medical scheme.

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ADMIN LEA cont.

Education General Inspector (Secondary) (Ref: A12/145)

We require experienced and well qualified educationists for the above appointment in the Authority's Advisory and Inspection Service which is vacant due to promotion. The post is concerned with general curriculum and professional development work in Secondary Schools. Applicants should have held a senior post in secondary education and be able to demonstrate skill in and understanding of curriculum, management and professional development issues.

Schools Industry Liaison Officer (Ref: S26/145)

£8,754-£11,763 pa

As part of a developing commitment to strengthening links between schools and industry, the Authority is seeking a mature and energetic person to undertake this demanding role. Candidates (male or female) should be able to work on their own initiative and will need to demonstrate a proven ability to work effectively across different disciplines and have a sound record of success in their career to date. Education to Honours Degree level is essential and candidates will need to have had successful experience in education and/or in industry and commerce.

Closing date: 28 October.

Social Services Senior Instructor (Ref: RN/560/145)

£7,191-£7,896 pa

Social Skills for Living. We are seeking to complete the Management Team at Nottinghamshire's new Adult Training Centre in Chilwell. The post will entail the supervision and management of staff and the delivery of training to adults.

For further information/informal discussion contact John Clough, Manager, Tel: Nottingham (0602) 257125. Closing date: 28 October.

Application form and job description may be obtained by writing to the Staffing Section, Social Services Department at County Hall, Closing date 28 October.

For all the above posts relocation expenses where appropriate. Please quote appropriate reference number, (6301).

Nottinghamshire County Council
County Hall, West Bridgford
Nottingham NG2 7BE

For further information/informal discussion contact John Clough, Manager, Tel: Nottingham (0602) 257125. Closing date: 28 October.

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HAMPSHIRE EDUCATION COMMITTEE CAREERS SERVICE

A vacancy exists for a person to fill the post of a Career Adviser in the County of Hampshire.

The post holder will be responsible for the provision of career advice to school leavers and young people in the County of Hampshire.

Applicants should have a minimum of five years' experience in a similar post and be able to demonstrate a good knowledge of the career field.

For further information and an application form, please contact the County of Hampshire Education Committee, 100, High Street, Winchester, Hampshire, SO1 1AA. Tel: 01962 511111. Closing date: 28 October 1983.

Applicants should have a minimum of five years' experience in a similar post and be able to demonstrate a good knowledge of the career field.

For further information and an application form, please contact the County of Hampshire Education Committee, 100, High Street, Winchester, Hampshire, SO1 1AA. Tel: 01962 511111. Closing date: 28 October 1983.

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Applicants should have a minimum of five years' experience in a similar post and be able to demonstrate a good knowledge of the career field.

Administration General

LEEDS

A key person is required to fill the post of a Career Adviser in the County of Leeds. The post holder will be responsible for the provision of career advice to school leavers and young people in the County of Leeds.

Applicants should have a minimum of five years' experience in a similar post and be able to demonstrate a good knowledge of the career field.

For further information and an application form, please contact the County of Leeds Education Committee, 100, High Street, Leeds, LS1 1AA. Tel: 0113 2751111. Closing date: 28 October 1983.

Applicants should have a minimum of five years' experience in a similar post and be able to demonstrate a good knowledge of the career field.

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SOUTHERN REGIONAL EXAMINATIONS BOARD

For the Certificate of Secondary Education

DEPUTY SECRETARY

Applications are invited for appointment to this post which will become vacant upon the retirement of the present holder on 31st December, 1983.

The person appointed should have appropriate academic qualifications, teaching experience at secondary level and experience in the administration of examinations. In addition to deputising for the Secretary across the whole range of the Board's activities, the Deputy Secretary will also play a major part in the development work for proposed examinations at age 16+ and 17+ and other forms of assessment as, for example, graded tests and profiles.

The present salary scale attaching to the post commences at £14,356 and rises by six annual increments of £317 to a maximum of £18,258.

Full details of the post and application forms are obtainable from the Board's office at Avondale House, 33 Carlton Crescent, Southampton SO9 4YL (Tel: 0703 32312).

Completed forms should reach the Secretary by 28th October, 1983.

Interviews for selected applicants will be held on 10th November, 1983.

SOUTHWARK DIOCESAN BOARD OF EDUCATION

Applications are invited for the post of

DIOCESAN DIRECTOR OF EDUCATION

To take office as soon as possible after 1st January, 1984

The post is open to Communicant members of the Church of England, ordained or lay.

Salary for a lay person on General Synod Principal Officer Grade Scale of £12,999 to £17,035 per annum (including London Weighting allowance).

For an ordained man Southwark stipend for Archdeacons with house free of rent, rates etc.

A candidate is looked for who is able to initiate educational policy, with experience in educational administration and of working for or negotiating with Local Education Authorities.

Full details available from: The General Secretary, Southwark Diocesan Board of Education, 48 Upper St. Dunstan, London EC6A 3DF. Tel: 01-580 1234. Closing date for applications: Two weeks from date of this advertisement.

SENIOR RESEARCH OFFICER

Salary up to £14,000 (under review)

For the Test and Measurement Research Unit

to develop the methods by which CGLI assessment materials are reviewed.

(ii) to assist in the training of CGLI staff and examiners in assessment techniques;

(iii) to provide a consultancy service within the Institute and for client organisations on all matters relating to assessment;

(iv) to develop assessment materials for CGLI schemes.

Applicants should hold a degree in Psychology (or equivalent) and have a working knowledge of statistical methods including the fundamentals of inferential statistics. They should preferably have several years experience of achievement testing in an applied setting.

Application to: Keith Jackson, Personnel Officer, City & Guilds of London Institute, 78 Portland Place, London W1N 4AA. Tel: 01-580 3060.

City & Guilds

Project Adviser

Posts in MSC

The Manpower Services Commission is responsible, on behalf of the Secretary of State for Employment, Education and Science, and the Welsh Office, for the implementation of the Technical and Vocational Education Initiative (TVEI) in collaboration with local education authorities in England and Wales. The TVEI Unit of the MSC wishes to appoint a number of Advisers who will be responsible for assisting LEAs in the implementation of the initiative. The Advisers will be responsible for planning, organising and implementing TVEI projects for liaison with schools and colleges taking part in the project; and for monitoring the progress of each adviser will be responsible for monitoring a number of projects within a region or area of the country and considerable travelling is therefore involved.

Candidates should be qualified teachers with a strong commitment to the development of technical and vocational education, and should have wide teaching/advisory experience, including experience at a senior level in secondary or further education institutions in England or Wales.

Appointments will be offered on a 2 year secondment with options for extension up to a maximum total period of 6 years. MSC invites applications from interested practitioners.

Employers wishing to nominate a seconded person are asked to forward full details, including the candidate's CV, to Room N208, Manpower Services Commission, Moorfield, Sheffield S1 4PQ, by 28th October 1983.

MSC Manpower Services Commission

SENIOR EDUCATIONAL PSYCHOLOGIST Ref No. EDU/1250/CO

Salary Scale Southbury HT Group 8 (0-4) £13,953-£16,188

Applications are invited from qualified and experienced educational psychologists.

The Service is large and offers good opportunities for professional development. It works in close collaboration with Child Guidance, Health and Social Services Departments. Duties will include responsibility for service to the schools in an area of the County; the seniority of the post attaches to a co-ordinating function of the educational psychology services supplied to the County's Social Services Department.

The successful applicant will have an honours degree in Psychology or recognised equivalent qualifications; at least two years' qualified classroom teaching experience; and have successfully followed a course of specific postgraduate professional training as an Educational Psychologist.

Application forms and further details are available from the County of Hampshire School Psychological Service which has an establishment of 38 Educational Psychologists.

This is a re-advertisement of the post for which the post holder is resigning. The post is in the Southampton and the Basingstoke Area and the other in Southampton

CAMBRIDGE UNIVERSITY PRESS



Science Desk Editor

The School and Further Education section of Cambridge University Press requires as soon as possible a Desk Editor to work on a rapidly growing list of science textbooks.

The successful applicant should have a degree in the Physical Sciences (Chemistry and/or Physics) and a knowledge of Biology would also be useful. At least one year's editorial experience in schoolbook publishing is required and teaching experience is desirable but not essential.

This post offers the chance to join an exciting and rapidly expanding publishing group and the work will involve all aspects of book production from an early stage. The successful applicant will become quickly involved in important decision making and there will be ample opportunity to use initiative and new ideas.

Salary is on a scale from £6,069 - £8,265. Four weeks annual holiday. Please write giving full details of education and previous experience to:-

Mrs. Jenny Jullien,
Personnel Director,
Cambridge University Press,
The Edinburgh Building,
Shaftesbury Road,
Cambridge CB2 2RU.

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We hope you're one of those teachers who thoroughly enjoys teaching. Who doesn't mind letting his enthusiasm show. Because we have some very keen and responsible pupils for you to train.

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